

No. 13122

**United States
Court of Appeals**
for the Ninth Circuit.

UNITED STATES OF AMERICA, R. P. JANDL,
as Administrator of the Estate of William F.
Leland, Deceased, and C. W. BREAKIRON,
Successor Receiver for Atlantic and Pacific
Airlines,

Appellants,

vs.

EAGLE STAR INSURANCE COMPANY,
LIMITED; ORION INSURANCE COM-
PANY, LIMITED; THE DRAKE INSUR-
ANCE COMPANY, LIMITED, Subscribing
Underwriting Members of Lloyd's, London,

Appellees.

Transcript of Record

In Two Volumes

Volume II

(Pages 271 to 544)

Appeal from the United States District Court for the
Western District of Washington,
Northern Division.

JAN - 9 1952

PAUL P. O'BRIEN

Phillips & Van Orden Co., 870 Brannan Street, San Francisco, Calif.

CLERK

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**Appeal from the United States District Court for the
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Northern Division.**

DOUGLAS MINER

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews:

Q. Will you state your name?

A. Douglas D. Miner.

Q. What is your business?

A. I have an airplane maintenance shop on Boeing field.

Q. How long have you had that place of business at Boeing Field? A. Since 1939.

Q. What license do you hold from the CAA?

A. Aircraft and engine mechanic's license.

Q. Were you familiar with the airplane known as a Douglas DC-3 79025 which is the subject matter of this lawsuit? A. Yes.

Q. State whether or not you were present at Boeing Field the night that that airplane attempted to take off on the occasion on which it crashed.

A. Yes.

Q. Were you close enough to the airplane to hear the sound of its motors? [144] A. Yes.

Q. Where were you on the field that night?

A. On the northwest corner.

Q. How close were you to the airplane?

A. I would estimate about 500 feet west of the runway.

Q. Who was with you? A. Mr. Vineyard.

(Testimony of Douglas Miner.)

Q. Did you hear the motors revved up prior to the take-off? A. Yes.

Q. State whether or not they sounded in all respects normal? A. Yes.

Q. Were you in the same location that you have described when the airplane took off?

A. No. Mr. Vineyard and I drove to the east side of the concrete ramp to watch the take-off.

Q. Did that get you up closer to the airplane?

A. Yes.

Q. How close were you to the airplane as it took off, as it passed you?

A. I would estimate about 300 feet.

Q. What have you to say as to the sound of the motors during the take-off?

A. Absolutely normal. [145]

Q. Did the power appear to you to be applied evenly? A. Yes.

Q. Did you hear or observe anything that indicated to you any malfunctioning of the engines during the take-off? A. No.

Q. Had you examined or serviced this airplane in your shop a short time prior to take-off?

A. Yes.

Q. When an airplane is serviced, do you fill out a report covering what you did to the airplane and indicating its condition? A. Yes.

Q. Is that report filled out on a form that is prescribed by the Civil Aeronautics Administration?

A. It is approved by the Civil Aeronautics Administration.

(Testimony of Douglas Miner.)

(Copy of 400 hour inspection report marked Defendants' Exhibit A-11 for identification.)

Q. Handing you what has been marked as Defendant's Exhibit A-11 for identification, I will ask you if you can state what that exhibit is?

A. That is our form, that is the reproduction of our form we used to conduct an inspection on this aircraft.

Q. What type of inspection do you call that?

A. This is a 400 hour inspection.

Q. What other types of inspection do you have of [146] airplanes besides the 400 hour inspection?

A. This same form is used for the 100 hour inspection and we also have the 25 hour inspection.

Q. Is the 400 hour inspection a more thorough and complete inspection than the 25 hour or the turn around inspection? A. Yes.

Q. Is there any more thorough and complete type of inspection provided for than the type of inspection that is made and reported on that report that you have in your hand? A. No.

Q. What is the date of that report?

A. December 22, 1948.

Q. Can you tell from examining that report when you completed your examination and inspection of the airplane?

A. Yes, this form was completed December 22, 1948.

Q. What in your opinion was the mechanical condition of that airplane and all of its instruments

(Testimony of Douglas Miner.)

and component parts upon the date of the inspection, of your examination?

A. Very good condition.

(Copy of 25 hour inspection report marked Defendant's Exhibit A-12 for identification.)

Q. By 400 hour inspection, does that mean that is an inspection you make after each 400 hours of operation of the airplane? [147] A. Yes.

Mr. Matthews: We offer Defendant's Exhibit A-11.

Mr. Cluck: No objection.

The Court: Admitted.

(Defendant's Exhibit A-11 received in evidence.)

Q. I have handed you what has been marked for identification as Defendant's Exhibit A-12 and will ask you if you can state what that is?

A. That is a 25 hour or turn around inspection form.

Q. By whom was that inspection made?

A. Mr. Ramberg.

Q. Is he employed by you?

A. He was at the time.

Q. At the time this inspection was made?

A. Yes.

Q. Did he work under your supervision?

A. Yes.

Q. How many hours, if you know, had the airplane been operated between the time of the 400

(Testimony of Douglas Miner.)

hour inspection you have just testified concerning and the date of this 25 hour inspection which has been identified as Defendant's Exhibit A-12?

A. In accordance with this form, it says 22 hours and 40 minutes. [148]

Q. Did you run the motors after this 25 hour inspection was made? A. Yes.

Q. Did you say that you were familiar with the condition of the airplane following this 25 hour inspection? A. Yes.

Q. What was the date of that 25 hour inspection? What date was it completed?

A. January 2, 1949.

Q. That is the date of the crash? A. Yes.

Q. What, in your opinion, was the mechanical condition of the airplane and all of its instruments on January 2, 1949? A. Very good condition.

Mr. Matthews: I offer Defendant's Exhibit A-12.

Mr. Cluck: No objection.

The Court: Admitted.

(Defendant's Exhibit A-12 received in evidence.)

Form No. MA and E, 4-4-45—dvs

35 HOUR OR TURN AROUND INSPECTION

1-2-49

Seattle, Wash. (Owner)

Is Registration Certificate displayed in aircraft? *Yes*Is Airworthiness Certificate in aircraft? *Yes*Has proper entry of this inspection been made in the appropriate log book? *Pilot's Flight Log*Mechanic's recommendation *Airworthy* Mechanic's Signature and No. *Handwritten Signature*

Pilot's Acceptance Signature

Aircraft License No. *MT-25*

Make

Boeing

Model

DC-3

Number of hours since last inspection

22:40

NOTE: opinion of the following by marking (✓) for satisfactory, and (X) for unsatisfactory

REMARKS

- Surfaces inspected for damage or obvious defects
- Main fuel strainers and fuel tanks drained
- Propellers checked for cracks, nicks, oil leakage, or other damage
- Landing gear inspected for damage or obvious defects
- Shock struts inspected for proper inflation
- Brakes and parking brake controls checked for proper operation
- Wheels inspected for balance, and for cracks and security of lock rings
- Hose clamps and connections checked for proper condition
- Sump tank or reservoir checked for sufficient oil
- Engines checked for evidence of throwing oil, leaks and failures
- Accessories, wiring inspected for damage or deterioration due to heat
- All cowlings and inspection doors and covers checked for security
- Magnetos checked for proper operation
- Fuel pressure gauge checked for correct pressure
- Oil pressure gauge checked for correct pressure
- Oil temperature gauge checked for correct temperature
- Supercharger blower checked for proper operation
- Vacuum system checked for proper operation
- Antifreeze system checked for proper functioning
- De-icer boots checked for proper operation
- Position and landing lights checked for proper time, color and condition
- Automatic pilot engaged and checked for proper operation
- Hydraulic pressure gauge checked for proper operation
- Ampmeter checked for indication of correct charge
- Tachometer checked for proper operation
- Hydraulic pumps checked for proper operation and functioning
- Toilet serviced, supply of water checked
- Hydraulic reservoir checked for proper fluid level
- Antifreeze reservoir checked for proper fluid level

Pilot Squake as Copied from Flight Log

Action taken on Pilot Squake

1 Rep. section indicator not working

1 No action indicated

2

2

3

3

4

4

5

5

Other Maintenance performed due to this inspection

Items needing repair that don't necessarily effect airworthiness:

1 overhauling control lines

1

2 replaced left wheel tire

2

3 replaced left wheel tire

3

4 replaced left wheel tire

4

5 replaced left wheel tire

5

ADMITTED

JUL 11 1950

(Testimony of Douglas Miner.)

Mr. Matthews: That is all.

Cross-Examination

By Mr. Cluck:

Q. Were you in charge of removing the frost and ice from the airplane prior to its departure that night?

Mr. Matthews: Objected to as improper cross-examination. [149]

Mr. Cluck: It is just a matter of how broadly one construes the matter covered. The construction we submit is that the matter of the engine run-up, the matter of preparing the plane generally, its pre-flight procedure, was in Mr. Miner's hands to the extent it was in the hands of any mechanic, and one phase of it which was not covered is this matter of ice and frost removal.

The Court: Sustained.

Q. (By Mr. Cluck): Did you cause records of the matter covered in your inspection sheets to be entered in logs of the airplane?

Mr. Matthews: Objected to as not proper cross-examination.

The Court: The objection is overruled.

The Witness: Yes, we noted in that part of the flight log called the pilot's flight record all maintenance that we performed.

Q. What logbooks were there relating to this airplane?

A. There was a logbook for each engine, each

(Testimony of Douglas Miner.)

propeller, and the air frame, and also the airplane flight record, which is a rougher draft of all the logs.

Q. Did you regularly make entries on those log-books from your inspection sheets?

A. Well, the inspection sheets were completed at the same time the pilot's flight record was signed off. [150]

Q. How long was your engine run-up that you mentioned before the plane took off?

A. The run-up that I made myself?

Q. Yes.

A. That generally takes about 15 minutes.

Q. Do you know how long a time the engines were run while it was being taxied?

A. Mr. Chavers and I taxied the airplane from the west side of the field to the administration building. That probably took about 15 minutes.

Mr. Cluck: That is all.

Redirect Examination

By Mr. Matthews:

Q. I am sorry, I didn't understand what you said about making entries in the airplane's logbook.

A. Well, it is part of the airplane flight logs that we call the pilot's flight record. That is a rougher draft of all the flight records and maintenance performed to the airplane.

Q. Is that in the form of a book?

A. Yes, it is a large book.

(Testimony of Douglas Miner.)

Q. Where is that book kept?

A. That is kept in the airplane at all times.

Q. Was that book current and in proper condition?

A. Yes. [151]

Q. I hand you Defendant's Exhibit A-11 and I specifically call your attention to an entry made after—under the heading "logbooks." Will you read the question and the answer that you filled in?

A. I didn't fill this in. This is signed by Mr. Ramberg.

Q. Did you make the entries in the logbook or Mr. Ramberg?

A. I suppose Mr. Ramberg did.

Q. Anyway, you know you didn't?

A. Well, I wouldn't swear to the fact, but it is customary that the——

Q. Just answer my question.

A. I wouldn't wear—I am not sure.

Q. So you don't know what the condition of the logbook was, whether it was current and up to date or not?

A. I am quite sure.

Q. Did you see it that night? Did you examine it?

A. Yes.

Q. When?

A. The—you are speaking of this large inspection form here, February 22?

Q. No, I am speaking of the logbooks, not the inspection form. Did you make any entries in the logbook?

A. From time to time I did, yes.

Q. When did you make the last one that you remember of? [152]

A. I don't recall.

Mr. Matthews: That is all.

Mr. Cluck: That is all.

The Court: You may step down.

E. L. RAMBERG

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews:

Q. Will you state your name, please?

A. E. L. Ramberg.

Q. What is your business?

A. Aircraft mechanic.

Q. What license do you hold from the Civil Aeronautics Administration?

A. Aircraft and engine license.

Q. How long have you been an aircraft mechanic? A. 1946.

Q. How long have you held a license from the Civil Aeronautics Administration?

A. Since 1946.

Q. Were you employed by Mr. Douglas Miner on January 2, 1949? [153] A. Yes.

Q. I would like to have you examine, if you will, please, what has been marked for identification as Defendant's Exhibit A-11 and ask you if you can state what that is.

A. This is the 100 and 400 hour inspection form used by the company for which I work.

(Testimony of E. L. Ramberg.)

Q. Did you do the work that is referred to and described on that report?

A. I didn't do it all.

Q. Did you supervise? Was it done under your immediate supervision?

A. It was done under Mr. Miner's supervision, and I was more or less of a helper with other help.

Q. Did you fill out the report?

A. I filled the report out, yes.

Q. What have you to say as to the condition, mechanical condition, of that airplane and all of its instruments upon the completion of that 100 hour inspection and the work that you did in connection therewith?

A. Mechanically the airplane was in very fine condition at that time, at the completion of this inspection.

The Court: When was that with reference to the crash?

The Witness: This is dated December 22, 1948.

Q. I would now like to hand you what has been marked Defendant's Exhibit A-12 and ask you if you can state what [154] that exhibit is.

A. This is a 25 hour and turn around inspection form used by the company.

Q. Was that form filled out by you?

A. Yes, it was.

Q. When did you complete that 25 hour, so-called turn around inspection?

A. January 2, 1949.

Q. That was the date of the crash?

A. That is right.

(Testimony of E. L. Ramberg.)

Q. How long had the airplane been operated between the time of the 100 hour report and the 25 hour report, Exhibit A-12?

A. 22 hours and 40 minutes.

Q. What have you to say to the Court as to the mechanical condition of the airplane and all of its component parts upon the completion of that 25 hour inspection on January 2, 1949?

A. Mechanically it was in good shape.

Q. If you will refer again to Defendant's Exhibit A-11, on the first page of that exhibit, under the heading "logbooks" there is a question and an answer, and after the answer is a question mark. Will you read the question that precedes the question mark that appears on that form?

A. "Is aircraft log book available?" Is that the one [155] you want?

Q. No, the next question.

A. "Current and in proper condition."

Q. What is the question?

A. "Current and in proper condition."

Q. What was your answer to that question?

A. I put a question mark.

Q. What did you mean by that?

A. Simply that I didn't know that they were, that I didn't on the aircraft logs—I did not make an entry on the log books of the aircraft of this inspection.

Mr. Matthews: That is all.

Mr. Cluck: That is all.

The Court: You may step down. Call the next witness.

Mr. Matthews: This witness has asked me if he could be excused.

Mr. Cluck: All right.

The Court: Mr. Ramberg may be excused.

Mr. Matthews: Mr. Cuddeback, would you resume the stand?

The Court: Hearing no objection, he will resume the stand.

LEON D. CUDDEBACK

Direct Examination

(Continued)

By Mr. Matthews: [156]

The Court: Is there anything else about the statute you wish to mention?

Mr. Wilkerson: Yes, your Honor. I have 49 U.S.C.A. Sec. 581. It is in two paragraphs. The first paragraph as I interpret it, has nothing to do with the matter under consideration.

The second paragraph is as follows: "The records and reports of the former Air Safety Board shall be preserved in the custody of the secretary of the Civil Aeronautics Board in the same manner and subject to the same provisions respecting publication as the records and reports of the Authority, except that any publication thereof shall be styled 'Air Safety Board of the Civil Aeronautics Authority,' and that no part of any report or reports of the former Air Safety Board or the Civil Aeronautics Board relating to any accident, or the investi-

(Testimony of Leon D. Cuddeback.)

gation thereof, shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports."

The investigations are conducted pursuant to 49 U.S.C.A., Sec. 425, which, curiously enough, has a somewhat contrary provision as to admissibility in evidence. Sec. 425 (d) provides as follows: "Except as may be otherwise provided in this chapter, the Board shall make a report in writing in all proceedings and investigations [157] under this chapter in which formal hearings have been held, and shall state in such report its conclusions together with its decision, order, or requirement in the premises. All such reports shall be entered of record and a copy thereof shall be furnished to all parties to the proceeding or investigation. The Board shall provide for the publication of such reports, and all other reports, orders, decisions, rules, and regulations issued by it under this chapter in such form and manner as may be best adapted for public information and use. Publications purporting to be published by the Board shall be competent evidence of the orders, decisions, rules, regulations, and reports of the Board therein contained in all courts of the United States, and of the several States, Territories, and possessions thereof, and the District of Columbia, without further proof or authentication thereof."

I think it is clear from the clear wording of the statute that the most that is forbidden is the report

(Testimony of Leon D. Cuddeback.)

or reports of the Board, and certainly a witness who happened to have some incidental connection with a hearing which resulted in a report may testify to facts within his own knowledge.

The Court: Is there anything further?

Mr. Cluck: Your Honor, we will reserve presentation [158] until we hear what question is submitted. I have in mind, in addition to what has been said, the fact that anything that is offered to the Board itself as such could not be submitted here as being hearsay. We agree that testimony may be given on the witness' own direct knowledge with regard to facts, even though he may have given the same testimony before the Board, but our point of view is that when he comes into this court he has to submit his testimony based upon his own personal knowledge and based upon the same considerations as though there had been no CAB hearing and report. That is the general position.

The Court: What is the citation of the last statute read, which provides under certain circumstances for use of information in courts?

Mr. Wilkerson: 49 U.S.C.A., Sec. 425 (d), which relates to the general powers and duties of the Board.

The Court: Which one was enacted by Congress first?

Mr. Wilkerson: The code note on 425 (d) states: June 23, 1938, c. 601, Sec. 205, 52 Stat. 984, Reorg. Plan No. IV, and—

The Court: When was 581 enacted or approved?

(Testimony of Leon D. Cuddeback.)

Mr. Wilkerson: Enacted the same date, June 23, 1938, c. 601, apparently part of the same enactment.

The Court: Do you contend that except insofar as the [159] statute specifically excludes material, all of the information is admissible?

Mr. Wilkerson: I think that is a fair interpretation of the two statutes. Otherwise, they may not be reconciled.

The Court: You may inquire. Read the question.

(Last question read by reporter as follows:

“Q. Did you so act in connection with the investigation of this accident?”)

Mr. Cluck: Our position on that whole matter comes down to this: we don't dispute the right of counsel for defendants to have a witness come into this court and offer factual information based upon his personal knowledge, even though he may have had some connection with the CAA hearing.

The thing this was leading up to, as I anticipated, was what counsel was asking this witness, and that in effect was to relate his part in the CAA hearing, and on the basis of that, that is what he reported to them, rather than upon the basis of what he is giving on his direct knowledge, to give facts to this Court.

I submit the wording as used in the statute, “no part of any report or reports,” is not confined simply to the printed final adjudication of the Board. It is a statute passed to assure that litiga-

(Testimony of Leon D. Cuddeback.)

tion shall not be [160] penalized by hearings where there is no opportunity to cross-examine on the part of counsel, and where the hearing is held for an entirely different purpose, and the purpose of the statute would not be served if instead of introducing some formal report designated as such the same witnesses were called who appeared at the hearing and asked to testify in this court what they had testified there, apart from personal knowledge, as they remember it now.

The Court: The objection as applied to this question is overruled. The question is, did you so act. Read the question.

(Last question read by reporter as follows:
“Q. Did you so act in connection with the investigation of this accident?”)

The Court: Answer yes or no.

The Witness: Yes.

Q. (By Mr. Matthews): In that connection, did you make a request upon any one or did you make a search for the log books of this airplane?

The Court: Answer yes or no.

The Witness: Yes.

Q. What efforts did you make in order to try and locate the log books?

A. During the course of the [161] investigation——

The Court: I think you should just state what you did.

The Witness: First, myself or my agents collected everything they could get hold of.

(Testimony of Leon D. Cuddeback.)

The Court: The question asks for what you did. Do not say what your agents did; say what you did.

The Witness: I directed the gathering of all material pertaining to that flight.

Q. State whether or not you made any effort to locate the log books of this airplane?

The Court: You mean he personally?

Mr. Matthews: Yes.

The Witness: Insofar as they were part of the records of this trip.

The Court: I think you can answer that question yes or no.

The Witness: Yes.

Q. What log books were you able to find?

A. I don't recall.

Q. Do you have any notes from which you can refresh your recollection?

A. The materials that were collected were made the subject of a public hearing and transcripts of that public hearing are available, and the notes would be in that. I do not have a copy of that transcript. [162]

The Court: If counsel believe that that matter referred to by the witness is a part of the report made by the CAB, then I think you should consider whether or not that is excluded by the statute.

Mr. Matthews: I wanted, in view of the witness' last statement—I have here the testimony of the notes which he refers to, a written report which he prepared covering this question of log books, and it is found starting on page 5 of this document

(Testimony of Leon D. Cuddeback.)

which I am now handing to the bailiff, and I would like to give the witness an opportunity to refresh his recollection.

The Court: Let opposing counsel see it. After that, if they have no objection, it may be shown to the witness.

Mr. Cluck: No objection.

The Court: I understand there is no objection to the witness making the use of it which you indicated. I think you should now repeat——

Mr. Dennis: I want to object to his doing any more than reading it. I want to object if there is any attempt to put it in evidence.

The Court: Do not state any words therein contained. You may read the words therein contained. Do so as promptly as you can. I believe you had in mind certain pages, did you not?

Mr. Matthews: Yes. If there is no objection, I will [163] withdraw this witness, let him have a chance to run through it, and put another witness on.

The Witness: You didn't give me the page that referred to the item that you were discussing here.

The Court: Court will be at recess ten minutes, and I ask you to be able to proceed with this witness from then on to a conclusion of this witness' testimony.

(Recess.)

The Court: You may proceed.

Q. (By Mr. Matthews): Mr. Cuddeback, did

(Testimony of Leon D. Cuddeback.)

you locate a propeller log in the course of the search which we referred to previously? A. Yes.

Q. How many pages did that contain?

A. Two pages.

Q. Did any of the entries on those two pages pertain to the propellers currently installed on the airplane? A. No.

Q. Did you find an engine log book?

A. There were engine log books, book or books. I don't recall the number, whether there were one or more.

Q. What was the date of the last entry in the engine log book?

A. I would have to refer to notes to be certain of that. It was some time previous to this [164] flight.

Q. Would April 21, 1948, refresh your recollection? A. That sounds about right.

Q. Did that notation and entry pertain to either one of the engines currently installed on the airplane?

A. I would have to go back to my notes to be certain of that. It is my recollection that they were not.

Q. Did the aircraft log contain any accessory information?

The Court: Do you mean information as to the accessories on the engine, or some other accessories?

Mr. Matthews: I am using the witness' language. Perhaps he can explain it.

(Testimony of Leon D. Cuddeback.)

Q. What do you understand by the term "accessory information"?

A. Well, the accessories are various component parts of the aircraft.

Q. Such as?

A. Generators, batteries, instruments, their time of installation, and that sort of thing.

Q. Did the aircraft log contain any accessory information?

A. I would have to go back to notes.

Q. Will you look at your notes?

A. At the time of the investigation, I looked at these records and I made a report which I find I read into the public hearing, the record of the public hearing, at the time of the public hearing. That report was made by me after [165] personal inspection of such records as were made available during that investigation.

I might state that our instructions from the Civil Aeronautics Board, of which I am an employee, have interpreted the prohibition of use of the Board's records to the investigators themselves on matters they have found within an investigation, except for factual matters that might be of their own knowledge and which can't be adduced in court by any other means.

The Court: I have the impression of some such similiar restriction being made to appear in some other litigation, and that is what has been part of the information in the mind of the Court, in some

(Testimony of Leon D. Cuddeback.)

of the statements made by the Court prior to this time during the course of the trial.

While we have the interruption on the subject, I would like to remind counsel in the case if, in view of the review of the statutory law which we have all had from the reading of it by Mr. Wilkerson during his last consideration of the subject, counsel in the case feel aggrieved, continue to feel aggrieved by reason of any previous ruling the Court has made in the progress of the trial, I invite you to call such grievance to the Court's attention at any and all times which you may avail yourselves of during this trial, and if no time [166] appears to normally suggest a review of the matter, I wish you to arrange for a time for presenting the matter to the Court again before this trial closes. You may proceed.

Q. (By Mr. Matthews): Did the aircraft log contain any accessory information?

A. I am checking my notes. Just a second, please. The aircraft log in this case was comprised of the pilot's flight reports and mechanics' maintenance reports, and may or may not have been the approved log book for that airplane. That would be in accordance with the C.A.A. approval of their operations procedure.

Q. Did the aircraft log which you examined contain any accessory information?

A. Apparently not.

Q. In accordance with your notes?

A. In accordance with my notes.

(Testimony of Leon D. Cuddeback.)

Q. I will ask you to state if the last inspection notation in the aircraft log was made on January 13, 1947, and the last trip notation October 22, 1948?

A. That is correct, according to my notes.

(C.A.B. report marked Defendants' Exhibit A-13 for identification.)

DEFENDANTS' EXHIBIT A-13

Civil Aeronautics Board

Certification of True Copy

Washington, September 20, 1950.

I Hereby Certify that the annexed is a true copy of the original C.A.B. Accident Investigation Report* of an accident involving a Douglas DC-3 aircraft, NC-79025, operated by Seattle Air Charter, an irregular air carrier, which occurred at Seattle, Washington, on January 2, 1949, on file in the Minutes Section, Civil Aeronautics Board, Washington, D. C.

/s/ MABEL McCART,

Chief, Minutes Section.

*Note: "No part of any report * * * of the Board * * * relating to any accident, or investigation thereof, shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports. * * *" (Civil Aeronautics Act of 1938, Sec. 701(e).)

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

Office of the Secretary of the Board

I Hereby Certify that Mabel McCart, who signed the foregoing certificate, is now, and was at the time of signing, Chief, Minutes Section, C.A.B., and that full faith and credit should be given her certificate as such.

In Witness Whereof, I have hereunto subscribed my name, and caused the seal of the Civil Aeronautics Board to be affixed this twentieth day of September, one thousand nine hundred and fifty.

[Seal] /s/ [Indistinguishable.],
Secretary, Civil
Aeronautics Board.

SA-181

File No. 1-0002

Civil Aeronautics Board
Accident Investigation Report

Adopted: May 4, 1949

Released: May 4, 1949

Seattle Air Charter—Seattle, Washington
January 2, 1949

The Accident

At approximately 2205,* January 2, 1949, a Douglas DC-3, NC-79025, owned and operated by Seattle Air Charter, an irregular air carrier, crashed and

*All times referred to herein are Pacific Standard and based on the 24-hour clock.

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

burned following an attempted takeoff from Boeing Field, Seattle, Washington. Eleven of the 27 passengers and 3 crew members received fatal injuries. The aircraft was destroyed.

History of the Flight

A group of Yale University students returning to school following their Christmas vacation arranged with William F. Leland, sole owner and operator of Seattle Air Charter, to transport them from Seattle to New Haven, Connecticut, January 2, 1949. Departure was delayed because a full crew was not available at 1800 as had been originally planned. At approximately 2100 a crew was organized, consisting of G. W. Chavers, pilot; K. A. Love, copilot; and W. F. Leland, third crew member.

The flight taxied to Runway 13 for takeoff at 2138 and held because ground fog conditions restricted the visibility below the one mile minimum required for takeoff. The flight maintained radio contact with the control tower which advised the pilots of the existing weather conditions on the field. When the flight had taxied from the parking ramp, the tower reported, "Boeing Field weather is clear, visibility, $\frac{1}{2}$ variable to $\frac{1}{4}$ mile in all quadrants." The flight asked if they could take off. The tower replied: "Roger. We will let you out as far as traffic is concerned. You are cleared into position to hold." A few minutes later, at 2145, the flight requested their weather minimums for takeoff and

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

were told that they were ceiling 300 feet, and visibility one mile. To this, the flight responded, "If we take off we will be in violation, won't we?" The tower answered, "Yes." Shortly after this conversation, the tower again reported the visibility which was at that time restricted to $\frac{1}{8}$ mile.

After a period of 10 minutes during which time the flight continued to hold at the end of the runway, the tower remarked: "It appears we are getting a little break. Cleared into position and hold. We will have a clearance for you shortly." Immediately following, the flight's air route traffic control clearance was transmitted. Then, at 2201, the crew stated that they could see the four green range lights at the end of the runway, and that they were going to take off. These lights are located 5,700 feet from the approach end of runway 13, which is 7,500 feet in length. At 2204 the tower stated, "Cleared for take off report on top." At this time the weather as reported by the Weather Bureau was ceiling unlimited, thin obscurement, visibility one-fourth of a mile, restricted by fog. The airplane began its take off to the south, and for approximately 1,000 feet it appeared normal to observers who could see the navigation lights of the airplane. It then began to swerve to the left, becoming airborne approximately 1,800 feet down the runway on a heading 35 degrees to the left of the runway. Shortly after leaving the runway, the left wing dropped and the tip dragged on the ground

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

for a distance of 117 feet. The aircraft remained airborne for approximately 750 feet after leaving the runway, and then made contact with the ground in a landing attitude, tail wheel first. Upon contact with the ground, power to the engines was "cut." The aircraft rolled or skidded the remaining distance, approximately 700 feet, into a revetment hangar, immediately after which it was enveloped in flames.

As the tower watched the airplane's navigation lights, they realized that a crash was imminent and called the Boeing Field Fire Department which was located 1,300 feet south of the control tower, and 200 feet south of the revetment hangar into which the airplane crashed. The fire captain on duty heard the crash. He and 2 firemen, which comprised the duty crew that night, responded immediately, departing for the scene of the crash with all available equipment. This comprised a crash wagon and 2 pump trucks. The equipment arrived within a minute after the crash.

Investigation

It was found that the force of impact had completely crushed the nose of the aircraft and had telescoped it into the fuselage structure to approximately the position of the leading edge of the wing. Fire which immediately followed destroyed that portion of the fuselage forward of the main cabin door. During the fire fighting operation the wings

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

and the aft portion of the fuselage were pulled from the rest of the wreckage, and this resulted in breaking all of the control cables. The landing gear was found in the down and locked position, and the flaps in the "up" position. Trim tab control settings in the cockpit indicated that all trim tab control surfaces had been in the neutral position at the time of takeoff. Engine switches were found in the "on" position. Eighty per cent of the passenger seats were found broken from their floor attachments. All components of the aircraft were accounted for and no evidence of any structural or mechanical failure prior to impact was found.

Both engines were disassembled and inspected. This inspection revealed no indication that any of the internal working parts of the engines were not operating properly prior to the time of impact. Inspection of the master rod bearings revealed no evidence of over speeding on either engine. The disassembly of the engine accessories indicated that they were properly operating prior to the time of impact. Damage to the propellers, which were found in a low pitch position, showed that little power was being developed at the time of impact.

All the gyro instruments were removed from the wreckage and examined. It was found that all were clean and lubricated and were capable of normal operation before the accident. The directional gyroscopic instruments showed that the airplane was on

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

a heading between 90 and 95 degrees at the time of the crash.

During the day of January 2, while NC-79025 had been parked on the field without wing covers, snow fell from 1600 to 1700, leaving a deposit of 2 to 3 inches on the ground. The surface temperature at the beginning of the period was 39 degrees, but it fell below freezing by 1700. The first snow melted on contact with the aircraft and left a film of water on all its surfaces. With the lowering of temperature the water froze and the snow began to accumulate on the aircraft leaving a rough covering of frozen snow and slush.

The forecast for Boeing Field for the evening of January 2 indicated clear skies and visibility reduced to one mile by fog. It was expected that the fog would thicken causing ceiling and visibility to drop to zero by 2230. At 2015 patches of fog began drifting across the field, at which time the visibility was restricted to 1/16 of a mile.

Pilot Chavers had been briefed by the Weather Bureau at 1700 regarding the en route weather to Billings, Montana, the first refueling stop. This briefing indicated that with the possible exception of scattered snow showers the weather en route would be relatively good. At approximately 2100 Mr. Chavers was advised by the Weather Bureau that due to fog the local field conditions would remain variable with periods when both ceiling and visibility would be near zero. Between 2100 and the

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

time of takeoff Mr. Chavers made three calls by telephone to the control tower for reports of visibility. At no time did he receive information that visibility on the field was in excess of one-half mile.

Three transport type aircraft, two scheduled and one non-scheduled, took off from Boeing Field, Runway 13, between 2130 and 2200. The pilots of the scheduled aircraft testified that the visibility at the time of takeoff was $\frac{1}{4}$ to $\frac{1}{2}$ mile variable. The crew of the non-scheduled airplane testified that the visibility was slightly over a mile at the time of takeoff. These pilots stated that the takeoffs were routine and no difficulty was experienced due to runway ice, aircraft ice, or restricted visibility. The ice on the runway was smooth with no ruts. It was also found that the Boeing Field lighting system, including the runway lighting, was functioning normally the night of the accident. With a clear sky condition the takeoff visibility minimum for the scheduled carriers was $\frac{1}{4}$ mile, and for the non-scheduled carriers one mile.

At approximately 1800 an attempt was made to remove the snow and ice from the airplane, by dragging a rope over the wings and the horizontal tail surface. This removed some of the snow but none of the ice. Then a high pressure water hose was used. Loose snow and slush were washed free by the process, but a coating of clear ice formed where the water was applied, and it was at this time that ice accumulated on the under surfaces of the

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

wing. Both temperature and dew point were 29 degrees, and frost began to form on the iced surfaces of the airplane.

Emmett G. Flood, who had been obtained as one of the pilots to make the flight, arrived at the airport at approximately 1930 and examined the airplane. Because of the ice condition on the airplane, he refused to fly. According to Mr. Flood's statement, he returned home and, at approximately 2045, notified a CAA Aviation Safety Agent by telephone of the condition of the aircraft. According to the statement of the agent concerned, he received the information at home, at approximately 2150, after which he immediately notified his superior who resided nearby. During the time that he and his superior were conferring, they received notice that the accident had occurred.

Shortly after Mr. Flood left the field a third attempt was made to remove the ice from the aircraft by Leland, Chavers and Mr. Minor, a mechanic. This time an alcohol solution was applied to the wings and the tail surfaces of the aircraft. The mechanic testified that all ice was removed by this process; however, no attempt was made to remove ice on the under surfaces of the wings, and the mechanic did not examine this portion of the aircraft. At 2115 Mr. Chavers requested the advice of another pilot, a Mr. John Vineyard, concerning the effect of the ice on the aircraft. Mr. Vineyard examined the aircraft and then told Mr. Chavers

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

that if he intended to fly the airplane that night to obtain plenty of air speed before taking off. Mr. Vineyard later stated that when he examined the airplane, which was just before takeoff, he found a layer of clear ice covering the underside of both wings and patches of rime and clear ice on the top surfaces of the left wing. He also stated that he noticed heavy frost was forming rapidly on the top surfaces of the wings.

The maximum gross allowable takeoff weight for NC-79025 was 25,346 pounds. The average weight of the passengers as determined from the Yale University health records was approximately 160 pounds. Assuming the crew members to be the same weight, total weight of the passengers and crew would be 4,800 pounds. The weight of the fuel would be 3,814 pounds, and the weight of the baggage as shown by the passenger manifest was 533 pounds. The baggage was never weighed by any employee of Seattle Air Charter. Adding this weight to the empty weight of the aircraft, a total weight of 26,847 pounds is arrived at, which is 1,501 pounds greater than permissible takeoff weight. This overload reduced the margin of safety.

G. W. Chavers, age 33, held an airman certificate with a commercial pilot and instrument rating. He had a total of approximately 6,000 hours of flight time, over half of which had been obtained in multi-engine aircraft. Mr. Chavers had obtained his training in the United States Army Air Forces. His last

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

physical examination had been passed January 6, 1948. The copilot, Kenneth A. Love, age 39, held an airman certificate with a commercial pilot and instrument rating. He had a total of approximately 3,000 hours of flight time. Mr. Love had also received his flight training in the Army Air Forces. His last physical examination had been passed September 24, 1948. The third member of the crew, the owner of Seattle Air Charter, William Frederic Leland, age 31, held an airman certificate with a commercial pilot rating. There were no recent company records obtained of his flight time or experience; however, CAA records indicated that he had 466 flying hours at the date of application for his commercial certificate which was February 14, 1945.

Analysis

As stated above, a witness who examined the airplane shortly before the attempted takeoff found a coating of ice on the bottom surfaces of the wings. This witness also stated that he found patches of ice and frost on the top surfaces of the left wing. Formation of ice and frost on the wing would account for the failure of the flight to accomplish a normal takeoff, for ice and frost in addition to increasing the weight of the airplane, which was already 1,500 pounds over permissible takeoff weight, would tend to decrease the lifting qualities of the wings. It is also possible that the pilot did not have sufficient visibility to hold the airplane on

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

a straight course; however, his pilot experience included a reasonable amount of instrument training, and in view of this it can be reasonably expected that he would be able to continue the takeoff successfully by reference to instruments if all outside visible references were lost. Accordingly, the most logical explanation of this accident is that the airplane did not become normally airborne because of the ice and frost which is known to have existed on the wings.

Certainly the accident cannot be attributed to any mechanical failure in the airplane for all the evidence disclosed by the investigation indicated that the aircraft and all of its components were operating normally at the time of the crash.

Furthermore, this accident cannot be attributed to the manner in which the tower personnel dispatched their duties. The investigation showed that the tower continuously advised the flight of existing weather conditions on the field and that they adequately discharged their duties in providing traffic separation for arriving and departing aircraft. According to existing Civil Air Regulations, no other acts are required of, or duties imposed upon, tower personnel, and the pilot in command of the aircraft is solely and directly responsible for its safe operation.

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

Findings

Upon the basis of all available evidence the Board finds that:

1. The carrier, crew, and aircraft were properly certificated.

2. At the time of takeoff the airplane in addition to the weight of the ice, weighed approximately 26,847 pounds, which was 1,501 pounds in excess of its permissible takeoff weight.

3. At the time of takeoff ice covered the bottom surfaces of both wings, and patches of ice and frost were on the top surface of the left wing.

4. At the time of takeoff official weather at Boeing Field was ceiling unlimited, thin obscurement, visibility restricted to one-fourth of a mile by fog.

5. The pilot reported to the tower that he could see green range lights at the other end of the take-off runway, after which he was cleared for takeoff by the control tower. The green lights to which the pilot referred were 5,700 feet from the approach end of Runway 13, which is 7,500 feet in length.

6. The airport lighting system including that for the runway used was functioning normally.

7. After the airplane completed approximately 1,800 feet of the takeoff roll, it became airborne on

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)
a heading of 35 degrees to the left of the takeoff runway.

8. The left wing tip dragged the ground for a distance of 117 feet and the aircraft remained airborne for a distance of approximately 750 feet after which it made contact with the ground in a landing attitude.

9. Power to both engines was cut after the airplane touched the ground. It then crashed into a revetment hangar, and was immediately enveloped in flames.

10. No indication of any mechanical or structural failure in the aircraft or any of its components was found.

Probable Cause

The Board determines that the probable cause of this accident was the attempt to take off in an airplane which had formations of ice and frost on the surfaces of the wings.

By the Civil Aeronautics Board:

/s/ JOSEPH J. O'CONNELL, JR.,

/s/ OSWALD RYAN,

/s/ JOSH LEE,

/s/ HAROLD A. JONES,

/s/ RUSSELL B. ADAMS.

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

Supplemental Data

Investigation and Hearing

Civil Aeronautics Board, Region VII, was notified of the accident at approximately 2215, January 2, 1949, by CAA communications. An investigation was immediately initiated in accordance with provisions of Section 702 (a) (2) of the Civil Aeronautics Act of 1938, as amended. Investigators from the Civil Aeronautics Board Regional Office arrived at the scene of the accident at approximately 2250, January 2, 1949. Public hearing was ordered by the Civil Aeronautics Board and held in Seattle, Washington, January 18, 1949, in the Federal Court House.

Air Carrier

Seattle Air Charter, an unincorporated organization, was solely owned and operated by William F. Leland, Seattle, Washington. Seattle Air Charter held a letter of registration 7-85, dated August 8, 1947, giving the authority to operate as an irregular air carrier. It held a non-scheduled air carrier operating certificate issued June 4, 1947, No. 7-73. It was authorized to carry both passengers and cargo.

Flight Personnel

Captain G. W. Chavers, age 33, held an airman certificate with a commercial pilot and instrument

(Testimony of Leon D. Cuddeback.)

Defendants' Exhibit A-13—(Continued)

rating. He had a total of approximately 6,000 hours of flight time, over half of which had been obtained in multi-engine aircraft. His last CAA physical examination was on January 6, 1948. Copilot Kenneth A. Love, age 39, held an airman certificate with a commercial pilot and instrument rating. He had a total of approximately 3,000 hours at the time of the accident. His last CAA physical examination was on September 24, 1948. William Frederic Leland, age 31, held airman certificate with a commercial pilot rating. He had a total of 466 flying hours as of February 14, 1945.

The Aircraft

NC-79025 was a Douglas DC-3C. The aircraft was manufactured September, 1943, and was certificated by the Civil Aeronautics Administration September 11, 1946. On April 19, 1948, the aircraft received a required annual inspection and at that time was approved as airworthy. On December 22, 1948, a 100-hour inspection was accomplished by a certificated mechanic. It had been flown 5,419 hours since its manufacture, and was equipped with two Pratt and Whitney R-1830-90D engines and two Hamilton Standard Hydromatic propellers. The company files of Seattle Air Charter did not contain any current aircraft, engine, or propeller records.

Rejected.

(Testimony of Leon D. Cuddeback.)

Q. Handing you what has been marked for identification Defendants' Exhibit A-13, I will ask you if you can state [167] what that is?

A. That is the public release made by the Civil Aeronautics Board, May 4, 1949, which constitutes the Board's published report of the accident.

Q. Does that contain the findings of the Board as to the cause of the crash?

A. It contains a probable cause.

Q. Were you a member of the Board?

A. I am an employee of the Board. The Board itself is composed of five men, appointed by the President of the United States, who sit in Washington.

Q. Did you serve on this particular Board that investigated this crash?

A. I was in the investigation. The investigation, I might state for your information, the investigation is made in the field and the record is sent back to the Board for their final determination. They are the judge and jury.

Q. But that is the official public release and report of the Board?

A. Yes, sir.

Mr. Matthews: Your Honor, we want to offer this exhibit in order that we may squarely raise the question of the conflict of these two statutes. We offer this report pursuant to 49 U.S.C.A., Section 425(d).

Mr. Cluck: We object to it on several grounds. One [168] is that it is in direct violation of 49 U.S.C.A., Section 581. Another independent ob-

(Testimony of Leon D. Cuddeback.)

jection is that it is not certified or authenticated as would be required by statute. A further and independent ground is covered by a good deal of authority, which we will submit in an explanatory memorandum to the Court, on hearsay. There is an ALR annotation dealing rather exhaustively with this subject matter, as well as court decisions, to the general effect of holding that matters set forth in a report of this nature partake of the nature of hearsay testimony and are not admissible as between private litigants, especially when submitted for the truth of the matter asserted.

Mr. Matthews: We have, your Honor, a certified copy of the same report, and also call attention to the fact that this litigation is not confined strictly to private litigants, but that the United States of America is a party to this action. If it is on the question of certification, Mr. Chuck, I would like to substitute this certified copy for the one I have offered.

The Court: Let it be filed by a detachable device to what has been marked Defendants' Exhibit A-13 for identification, but do not put any clerk's marks on the certified copy yet. If you wish to thrash this matter out now so far as that statute is concerned, I will [169] undertake to assist you in that respect, but if you are going to ask that so far as this particular document is concerned, you wish to submit additional authorities which you do not have collected at this moment, and if it is convenient to the trial to hear those in the morning, the Court

(Testimony of Leon D. Cuddeback.)

will postpone the whole thing until tomorrow morning.

Mr. Cluck: We have additional authorities which I notice we do not have here this afternoon, dealing with the whole matter of utilizing administrative orders or findings in actions where the subject matter of the administrative proceeding comes up in such action, and we would like leave to submit those authorities, if the Court sees fit.

Mr. Matthews: That is agreeable, that the matter go over.

The Court: This matter will be reserved until tomorrow morning. I would like in the meantime to ask if this report is made public in the Federal Register with the same effect so far as notice to the public is concerned, in a way similar to the making of other contents of the Federal Register officially brought to the attention of the public.

Mr. Wilkerson: So far as I am advised, it is not. Perhaps the witness would have some information on that [170] subject. I found no statute requiring it.

The Court: Does anyone wish to ask the witness any information he may have concerning that?

Mr. Cluck: I had a question in reference to a related matter.

The Court: Is there anything else you wish to ask of this witness?

Mr. Matthews: No.

Mr. Cluck: Mr. Cuddeback, is the right of cross-examination accorded to operators whose operations

(Testimony of Leon D. Cuddeback.)

are made the subject matter of any investigation covered by such a report as you have referred to just now?

The Witness: I am not a lawyer. Cross-examination is not allowed. It is my understanding that that is correct.

Mr. Matthews: Don't you recall that Mr. Adams, who conducted the hearing, permitted anyone present to pass up questions to be asked to any of the witnesses and that if he considered those questions relevant or material he put those questions to the witnesses?

The Witness: That is correct.

Mr. Matthews: That is all.

Mr. Cluck: You know that some of those questions that were passed up were asked and some were not, do you not? [171]

The Witness: I believe that is right.

Mr. Cluck: And counsel were not permitted to interrogate witnesses directly either on cross-examination or direct examination, isn't that true?

The Witness: That is correct.

Mr. Cluck: That is all.

Mr. Matthews: Mr. Cluck and Mr. Houghton were both present during that examination and hearing, do you remember that?

The Witness: Mr. Cluck was there. I don't know whether they were both there all the time or not. They were there part of the time.

Mr. Cluck: We made the request, did we not, to call and examine our own witnesses and it was ex-

(Testimony of Leon D. Cuddeback.)

plained to us that this was not an adversary proceeding and therefore that privilege was not granted?

The Witness: I don't recall that specific instance. The legal member of the Board is the hearing officer and he attends to those matters, so it wouldn't be of personal knowledge to me, necessarily.

Mr. Cluck: You do know that we did not directly examine any witness, either on direct or upon cross-examinations? You know that, do you not?

The Witness: Yes, I know that.

Mr. Cluck: And that is the truth? [172]

The Witness: Yes.

The Court: You may step down.

JOHN O. VINEYARD, JR.

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews:

Q. Will you state your name, sir?

A. John O. Vineyard, Jr.

Q. Where do you live?

A. Richland, Washington.

Q. What is your business?

A. I work for the Atomic Energy Commission as chief pilot.

(Testimony of John O. Vineyard, Jr.)

Q. Chief pilot for the Atomic Energy Commission?
A. That is right.

Q. With headquarters at Richland?

A. That is right.

Q. What flying experience have you had?

A. Approximately 5,500 hours total flying time. I have been flying for ten years.

Q. How much experience have you had in multiple-engine aircraft? [173]

A. Possibly 2,500 hours.

Q. What experience have you had flying under icing conditions?

A. Well, I have had about 155 hours instrument flying, and possibly 50 hours of that has been under some kind of icing conditions.

Q. Have you ever been employed by the CAA?

A. Yes, sir.

Q. The Civil Aeronautics Authority?

A. Yes, sir.

Q. In what capacity?

A. Safety agent, aviation safety agent.

Q. When were you so employed?

A. 1946, to October, 1948. I believe June, 1946, to October, 1948.

Q. What were your duties as safety agent?

A. To certificate pilots, make inspections of any navigational hazard, or investigation of accidents, helping the Civil Aeronautics Board in investigating accidents, and anything pertaining to safety for aviation.

(Testimony of John O. Vineyard, Jr.)

Q. Were you called down to Boeing Field on the night of January 2, 1949? A. Yes, sir.

Q. Who called you?

A. Mr. Chavers. [174]

Q. Did you know Mr. Chavers?

A. Very well.

Q. What had been your relationship with Mr. Chavers?

A. Mr. Chavers and I flew together in 1941, the year of 1941, and then went through Army Instructor School at Kelly Field in the latter part of 1941, and then we were connected when I was in ATC at Love Field, Dallas, Texas, for a short time. I have flown with him quite a bit.

Q. What time did you arrive down at the field, approximately? A. Approximately 9 o'clock.

Q. Did you see on that occasion the certain airplane described as a Douglas DC-3 No. 79025?

A. If that is the airplane in question, I did. I don't remember the number of it.

Q. I am referring to the airplane that crashed on Boeing Field on which the Yale students were riding. A. Yes, sir.

Q. You did see that airplane?

A. Yes, I did.

Q. Where was the airplane when you first saw it?

A. It was on the west side of the field, sitting on a large cement apron in front of Mr. Doug Miner's maintenance place.

Q. The west side of that field? That would be

(Testimony of John O. Vineyard, Jr.)

across [175] the field from the tower and the administration building? A. Yes, sir.

Q. State whether or not you examined the wing surfaces and fuselage of that plane?

A. Yes, I did.

Q. Will you state what that examination revealed and who was present at the time you made the examination?

A. When I arrived at the airplane, Mr. Chavers met me at the car and went with me on the examination. We went underneath the wings and examined those by feeling the under surface of the wings for icing and icicles and such as that. We started on the right wing, passed under the center section feeling our way and seeing as much as we could. We did not have the aid of a flashlight, but it was not necessary, to feel the icing conditions underneath the wing. We went over to the right wing——

Q. Before you leave the left wing, what were those icing conditions underneath the left wing?

A. Just about every rivet underneath the under surface of the wing had a very small icicle, possibly a quarter of an inch, from one-eighth to one-quarter inch long, where water had accumulated and dripped from that protruding place on the skin of the wing.

Q. How close, approximately, are those rivets together on the underside of the wing? [176]

A. They will vary, depending on the riveting them to the structure of the wing. Some of them

(Testimony of John O. Vineyard, Jr.)

are as close as maybe half an inch, and some of them are three or four inches apart. It depends on what section of the wing they are on.

Q. Go ahead and explain what examination you made of the right wing.

A. We made the same examination underneath of the right wing, and then came back to the——

Q. What did your examination of the right wing show?

A. Just about the same as the left wing, but I did not examine the top of the right wing where I did the left wing.

Q. What did your examination of the top of the left wing disclose?

A. Several spots of accumulated ice and heavy frost on the leading sections, up near the leading edge of the left wing, and several spots of rough ice along the middle of the wing.

Q. Can you give the Court some idea of the extent and size of these spots, and their condition as to roughness or smoothness?

A. I can't recall just how large they were, but they were oblong spots, and I don't think I could fairly estimate how big they were, maybe from six inches to eighteen inches; some of them maybe six inches across, some maybe eighteen [177] inches long.

Q. How many spots would you say there were on the top of the left wing in the places you have indicated?

A. Probably four or five.

Q. What percentage of the surface of the left

(Testimony of John O. Vineyard, Jr.)

wing would you say was covered, to the best of your judgment, with the spots of rough ice and frost?

A. That is very hard to put it in percentage, because I didn't make that close an inspection of how much the ice covered the wing. From standing on the ground and feeling as far as I could, and from the lights of the car shining up on the wing, I could just see the tops of rough places that I observed. I did not examine the wing on top like I did on the bottom.

Q. Was Mr. Leland there at the airport that night?

A. Yes, he was there at the airplane and he was standing near when we were examining the wings.

Q. In your opinion, Mr. Vineyard, was this airplane in a safe condition to take off at the time you examined it?

A. I can answer that by saying that I would not have tried to fly it off under its present condition, icing condition.

Q. What is your opinion as to whether or not it was safe for someone else to fly it off?

A. No, sir, I did not think it was safe to be taken out. [178]

Q. Did you express that opinion to anyone on that occasion? A. I did.

Q. Will you relate that conversation?

A. I told Mr. Chavers that I did not think that the airplane was safe to take out, and that if he did fly it away or did take off with it to use as

(Testimony of John O. Vineyard, Jr.)

much of the runway and get up as much speed as he possibly could before he tried to pull it off the ground.

Q. Why did you advise him to use as much runway as possible and get up as much speed as possible before he tried to take it off the ground?

A. Because of having ice or obstructions on the wings, such as heavy frost or anything on the wing, will spoil the air flow over the air foil to where it will cause your stalling speed to increase. In other words, you would have to go faster over the ground to get the airplane to fly because of this stalling speed increasing to a point where the disturbance will cause the inefficiency of the air foil.

Q. Will you explain briefly what it is that makes an airplane fly and the importance of a smooth surface on the wing of an airplane in connection with its lifting qualities?

A. The wing of an airplane is an air foil, so designed to cause lift as it is pulled through the air, and the skin on the wing of the airplane is made as smooth as possible [179] to cause a smooth flow of air over the wing, and much obstruction on the skin will cause a burbling effect of the air passing over the air foil to where it will disturb and make the wing less efficient than it would if it had a smooth surface to flow over, and cause it to be less efficient to have lift to make the airplane fly.

Q. What do you mean by a burbling effect?

(Testimony of John O. Vineyard, Jr.)

A. The air will tend to whirl. As it hits the little objects on the wing it will destroy them, flowing over it smooth, and the air will whirl like a little whirligig. It will whirl and not have a smooth flow to help lift the airplane off.

Q. If an airplane took off and had more frost or rough ice on the left wing than it had on the right, state whether or not there would be any tendency of the airplane to stall either in one direction or the other?

A. Yes, sir, it would. Both wings are an air foil. Both wings have to fly, or if one wing has less resistance on it than the other wing, it would fly sooner than the one that had the most resistance on it. If one wing had more snow or ice or frost on it, it would cause more resistance and it would have to be pulled through the air much faster than the wing that didn't have, so consequently the wing that would have the most resistance on it would stall out sooner than the one that was flying or the one that had less [180] resistance on it.

Q. So there will be no mistake about it, what do you mean when you say a wing stalling out?

A. The stalling condition is where a wing is slowed up to a slow speed, to where it will quit flying. It loses its efficiency.

Q. In other words, you could have a situation, if I understand your testimony correctly, if there was more ice on the left wing, or frost, than there was on the right, the right wing would fly and the

(Testimony of John O. Vineyard, Jr.)

right side of the plane would go up and the left side would dip down? A. That is right.

Q. State whether or not a condition such as that you have just described would have a tendency to cause the airplane to swerve to the left?

A. I would say that it would.

Q. Were you there at the time of the take-off?

A. Yes, sir.

Q. Were you there while the engines were revved up? A. Yes, sir.

Q. Where were you standing while the engines were revved up?

A. Just prior to take-off, is that what you mean?

Q. Yes.

A. I was in my car about 200 feet west on the cement [181] ramp west of the runway.

Q. Were you present when the airplane taxied from in front of Mr. Miner's maintenance shop out to the north end of runway 13 preparatory to take off? A. Yes, sir.

Q. When did you examine this ice with respect to the time that it taxied out to the end of the runway? A. Where was I?

Q. No, when did you examine the ice with respect to the time that it taxied out to the runway?

A. Just a few minutes, I would say just four or five minutes just prior to them taxiing it out, or maybe a little less than that, maybe three minutes.

Q. Is the condition you have heretofore described the condition the airplane was in when it taxied out to the end of the runway? A. Yes, sir.

(Testimony of John O. Vineyard, Jr.)

Q. Was any attempt made to remove the ice which you have described from the wings of the plane after it taxied out to the end of the runway there prior to take-off?

A. Not after I examined them, no, sir.

Q. What did you do next?

A. After the airplane taxied out to the end of the runway, Mr. Miner and I got in my car and drove over near the edge of the big cement ramp approximately 200 feet from [182] the west side of the runway.

Q. How close were you to the airplane at the time it passed in front of you on the take-off?

A. Approximately 200 feet.

Q. Were you able to see the airplane itself?

A. No, sir.

Q. What prevented you from seeing the airplane? A. Foggy condition.

Q. Could you see the range lights at the south end of runway 13, Boeing Field, at the time of the take-off? A. Not from my position, no, sir.

Q. Did you look down in that direction?

A. We looked for the runway lights, I did, and I couldn't even see those and I was within 200 feet of the runway.

Q. When you were parked in your car 200 feet from the runway, you could not see the runway lights that parallel the runway?

A. No, sir, I could not see the lights. I could see each one glow through the fog as it reflected

(Testimony of John O. Vineyard, Jr.)

on the water vapor in the air, I could see it glow from that, but actually seeing the light, I couldn't.

Q. Who was with you when you drove out to the edge of the runway?

A. Mr. Doug Miner. [183]

Q. What connection, if any, did he have with Mr. Leland's organization, if you know?

A. I don't know the exact connection, no, sir.

Q. Were you in his car when you drove out to the runway?

A. No, sir, it was our company car.

Q. State whether or not you did anything with respect to the lights on your car when you got out to the edge of the runway?

A. After they moved from the position where they first run their engines out to take-off position at the end of the runway, I flashed my lights several times trying to signal, and Mr. Chavers knew the signal that I was giving him, to not attempt to take off or get out of the airplane, because he had promised me that he would if it didn't look right.

Q. You had some conversation with him just before he taxied out to the end of the runway?

A. That is right, yes, sir.

Q. What had you told him?

A. I told him that the airplane wasn't safe and I wished he would get in the car and go on home with me, and he was being called into the airplane all the time we were having this conversation.

Q. By whom?

A. By Mr. Leland. Mr. Leland had started the

(Testimony of John O. Vineyard, Jr.)

right [184] engine, and I told him—he said, “Well, I’ll go on out and see what it looks like,” and I cannot remember just the exact words of the conversation, but he indicated that if he didn’t like the looks of it, he would get out.

Q. Had anything happened between the time they taxied out to the runway and the time they started the take-off that in your opinion increased the hazard of the take-off?

A. Well, the weather conditions was very variable that night, and at times you could see quite a ways and other times it would get so foggy you could see just a few feet ahead of you. At the particular time that they were running up their engines before they pulled out and in take-off position, it appeared to be clearing up a little bit, and just when they got out on the end of the runway, it seemed like it just come in, the fog was so thick you couldn’t see anything. That is about the only increased hazard that I would say.

Q. Do you have any recollection of about what the temperature was at the time of the take-off?

A. No, sir, not in degrees, but I know it was near freezing.

Q. Do you know what the condition of the runway was? A. No, sir.

Q. State whether or not you observed—what have you to say about the sound of the motors as to whether they sounded [185] normal or abnormal during the time they were being revved up or during the take-off?

(Testimony of John O. Vineyard, Jr.)

A. The motors sounded normal to me during the time of checking them prior to take-off, and then as the power was applied for take-off they sounded normal then.

Q. Did the power seem to you to be applied evenly? A. Yes, sir.

Q. Any spitting or backfiring?

A. No, sir.

Q. Any indication of anything unusual or abnormal that would indicate to you any mechanical failure during take-off?

A. Not from the sound of the engines. I thought that they were in trouble the minute I heard the first scrape, and I am not sure whether that was a wheel scraping or the wing tip scraping. That was the first sound, and immediately after that the power was pulled off the engines.

Q. Where did you and Mr. Miner go in the car which you were in?

A. We proceeded south down the edge of the cement apron to the south end of the field and then back up on the east side of the field to the scene of the accident.

Q. You were driving from north to south along the edge of the runway in the same direction in which the airplane had attempted to take off?

A. Yes, sir. [186]

Q. Will you describe what the visibility conditions were as you drove from the north end of the runway down to the south end of the runway

(Testimony of John O. Vineyard, Jr.)

immediately after the scraping noise that you heard?

A. The visibility was very limited. We at times had to look out the outside of the car, out through the window to drive, to keep from hitting other obstacles, other airplanes or light posts that was lined up along the ramp, to find our way down to the south end of the field and around the runway.

Q. How did the lighting conditions compare along this runway where you were driving as compared with out on runway 13? Was there any artificial lighting?

A. Yes, along the ramp they have overhead lighting, along where the airplanes are parked on the ramp, overhead lighting the same as the street lights out on the street in town.

Q. Does that provide more light or less light than there is out on the runway?

A. I would say they provide more light directly on the ramp.

Q. About how fast were you able to drive as you went north to south along the ramp?

A. Ten to fifteen miles an hour at the fastest.

Q. Notwithstanding this artificial light, you say you [187] had to put your head out the window to see where you were going?

A. At times we did, yes, sir.

Q. Did you examine the tracks that were made by this airplane the next morning? Were you there?

A. I examined the tracks shortly after the accident, after I got to the accident, and saw that the

(Testimony of John O. Vineyard, Jr.)

whole plane was on fire, the inside of the fuselage and in front. I got out of the car, and I don't know whether—I don't remember whether Mr. Miner accompanied me, but I walked out about half way to the runway looking at the tracks.

Q. What did you have for light at that time?

A. There was plenty of light there around that hangar that I could see. I didn't have a flashlight, and I went as far as I could distinguish the tracks before I turned around and came back.

Q. Were you there the next day?

A. Yes, sir.

Q. Did you make any further examination of the tracks left by the airplane the next day?

A. No, sir, I did not.

Q. Based upon what you saw that night concerning the condition of the airplane and all the other conditions and facts and circumstances that you have just testified to, will you state whether or not you have formed any opinion [188] as to the cause of the crash of this airplane?

A. In weighing all the——

Q. Have you formed an opinion?

A. Yes, I have.

Q. What is that opinion?

A. That it was a very hazardous operation.

Q. What do you consider caused the crash?

A. Weighing all the evidence that I have heard, and what I examined myself, I say between pilot proficiency and the icing conditions and possibly

(Testimony of John O. Vineyard, Jr.)

the overloading of the airplane that caused the crash.

Mr. Cluck: What was the first one you mentioned?

The Witness: Pilot proficiency.

The Court: What of those things did cause the crash, in your opinion, if you have an opinion?

The Witness: Well, sir, the combination of all, I think, are equally to blame for it. That is my opinion.

Q. What, in your opinion, caused the left wing to stall on the take-off?

A. Possibly the efficiency of the wing and not being at—not going through the air fast enough to fly, and it was still in a stalled condition when they tried to pull the airplane off the ground.

Q. In your opinion, was there enough ice on the left wing to materially affect the lifting qualities of the wing? [189]

A. Yes, sir.

Q. You have already testified you knew Mr. Chavers?

A. Yes.

Q. About how much did he weigh, in your opinion, on January 2, 1949?

A. Around 155 or 160.

Q. Did you know Mr. Leland?

A. Yes, sir.

Q. How much, in your opinion, did Mr. Leland weigh on January 2, 1950?

A. I would guess he weighed around 200 pounds.

Mr. Cluck: If your Honor please, I move that that answer be stricken. It is a matter of guess,

(Testimony of John O. Vineyard, Jr.)

and also the answer to the preceding question, where there is no evidence of what the conclusion as to weight is based upon.

Mr. Matthews: I believe the witness has testified he had been associated with Mr. Chavers for a number of years, knew him very well, had flown with him. We have authority to cite.

The Court: The objection as to the weight of Chavers is overruled.

Q. How long had you known Mr. Leland?

A. Since October, 1948, to the time of his death.

Q. Did you see him on more than one [190] occasion?

A. Almost every day that I was at the airport.

Q. Do you think from the opportunity that you had to see Mr. Chavers that you could form a reasonably accurate opinion as to his weight?

A. I know he was a very large man.

The Court: You said Mr. Chavers.

Mr. Matthews: Mr. Leland.

The Witness: I know he was a large man, but I am not an expert at guessing weights. It would have to be an estimate.

Q. What is your best estimate?

A. 200 pounds.

Q. Did you know Mr. Love? A. No, sir.

Q. What experience have you had in the operation of DC-3 airplanes?

A. I have gone through several schools in operations of DC-3 airplanes. In ATC I went through schooling on the airplane, on that type airplane.

(Testimony of John O. Vineyard, Jr.)

When I was with Trans World Airlines I went through first officer school and first officer training, and after nine months as first officer I went through captain's school, captain training on that type airplane, and have flown one approximately 2000 hours, or 2200 hours.

Q. Have you ever had occasion to file flight plans for [191] DC-3 airplanes? A. Yes, sir.

Q. Such as the one, the type that was involved in this accident? A. Yes, sir.

Q. In filing a flight plan, state whether or not it is customary to indicate the amount of fuel on board?

A. I believe it is a question of—no, now I am not positive about whether it is a question on that flight plan or whether it is the number of hours.

Q. I mean are you required on the flight plan to indicate either the amount of fuel in hours or gallons? A. Yes, sir.

Q. Have you filed flight plans for a DC-3?

A. Yes, sir.

Q. What allowance do you customarily make for fuel consumption in filing a flight plan on a DC-3?

A. You mean from the actual fuel consumption to what I would have in the airplane or required to put in the airplane?

Q. If you were going to make a flight that took, say, four hours of your flying time to your destination and your alternate, plus your leeway that

(Testimony of John O. Vineyard, Jr.)

is required by CAA regulations, say four hours, how much fuel would you provide in a DC-3?

A. There is a four hour flight, and there is a 45 minute [192] reserve required by the CAA.

Q. Assume that your flight and your reserve total four hours.

A. I would have over 400 gallons of gas.

Q. In your opinion, does safe practice of a DC-3 require that much gasoline, that would be 100 gallons per hour, for a DC-3?

A. I would say that would be a safe operation, 100 gallons an hour.

Q. Do you have any opinion as to whether or not it is customary that in computing flight plans and fuel consumption you use the factor of 100 gallons per hour?

A. From an operator's standpoint, I do not believe that they would use 100 gallons an hour. They would use what the manufacturer of that particular engine recommended. From a pilot's viewpoint, he would more than likely—the pilots I have flown with and have taken training with would compute the 100 gallons an hour for their own safety because of the difference between what the manufacturer actually recommended that it would burn and what it did burn. Some engines burn more than others.

Q. Would weather conditions such as bucking a head wind increase your fuel consumption?

A. Yes. If you are taking a flight that would require four hours and you had any indications of

(Testimony of John O. Vineyard, Jr.)

head winds, [193] instrument conditions or any adverse weather conditions, you would then be required, or you would take on more gasoline than just the four hour flight time, say a four hour flight time and 45 minutes reserve that the CAA required and another couple of hours to your alternate. You want to be sure you would have plenty of gas to buck any head winds or any adverse weather conditions to make safe operation into your alternate with a 45 minute reserve.

Q. If you examined a flight plan that was filed by Mr. Chavers, and on that flight plan in answer to the question "Fuel on board" was written "06:00," what would that mean to you?

A. 06:00?

Q. Yes, 06:00.

A. I would say that would be 06 o'clock or 0600 hours.

(Flight plan marked Defendants' Exhibit A-14 for identification.)

Q. Calling your attention to the space on that flight plan headed "Fuel on board," have you noted that entry? A. Yes, sir.

Q. What does that entry mean to you?

A. I would say that means six hours of flying, six hours fuel aboard.

Q. Which in a DC-3, in your opinion, would mean how much gasoline? [194]

A. If I were making it out, it would mean at least 600 gallons.

(Testimony of John O. Vineyard, Jr.)

Q. Did you say you have flown a great deal with Mr. Chavers? A. Yes, sir.

Q. Have you any opinion as to whether or not he might have had the same idea in mind in filling it out?

A. Yes, sir. I would say he would say 600 gallons. He would be assured of 600 gallons aboard.

Q. In other words, he would allow for 100 gallons an hour?

A. Yes, sir. That has always been our practice when we were flying together.

Mr. Matthews: You may inquire.

Cross-Examination

By Mr. Cluck:

Q. You mentioned two or three times that you had known Mr. Chavers for quite a little while?

A. Yes, sir.

Q. You knew of his reputation for pilot ability?

A. Yes, sir.

Q. State what it was.

A. I would say that Mr. Chavers was just about an average pilot. He wasn't above average.

Q. By comparison, how do you consider yourself?

A. Well, I would say that for the training that I have [195] had, the schools I have gone through and the grades that I know I have acquired. I might be just a little above average in comparison with him.

(Testimony of John O. Vineyard, Jr.)

Q. You think you are a somewhat better pilot?

A. In the schooling and background that I have had, I was a better pilot than Mr. Chavers, yes, sir.

Q. What was Mr. Chavers' reputation for being a cautious pilot? A. Very cautious.

Q. How did that compare with the average?

A. That is a very good mark for them, but I don't mean, whenever I say a better pilot. I don't mean he was more cautious than I. I mean there is a technique in a pilot that you have to consider. That is where you grade your pilot, in his technique in handling the particular airplane he is flying.

Q. You think you could fly where it would be cautious for Mr. Chavers not to?

A. Yes, sir. I have done so.

Q. How long had you known Mr. Chavers?

A. Since 1940.

Q. Had he ever been involved in any aircraft accident before this that you know of?

A. No, sir, not that I know of.

Q. What was his reputation generally for dependability [196] as a pilot, discharge of all his piloting functions?

A. Very good, as far as I know.

Q. Observance of duties and regulations?

A. Yes, sir.

Q. You indicated that you felt of the leading edge on the underside of both wings, is that correct?

A. No, sir, I didn't say anything about the

(Testimony of John O. Vineyard, Jr.)

leading edge of the underside. I said the under surface of the wings.

Q. From what point were you standing when you did that?

A. Walking underneath the wing, feeling in this manner (indicating). The wing is above my head and I am walking underneath the wing feeling of it in that manner.

Q. How much of the surface did you feel?

A. How much did I see or feel?

Q. Yes.

A. I would say probably 20 inches near the wing tip through the inner section of the center section.

Q. As far as the bottom side of the wings is concerned, did you notice any difference on either wing?

A. You mean the trailing edge underneath? No, sir.

Q. I mean the left as compared with the right wing.

A. Underneath?

Q. Yes.

A. No, I would say that they were both pretty well the same. [197]

Q. I understood you to say that the ice that you observed was small frost, that is, frost or ice crystal formations on the rivets of the aircraft, is that right?

A. No, sir, I did not say they were ice crystal formations. It was clear type ice. It was the type of ice that you can see through. That is the differ-

(Testimony of John O. Vineyard, Jr.)

ence between a rime ice and a clear ice. Rime ice is the frost type crystal such as you see in a refrigerator.

Q. It is the sight of the ice that determines it?

A. I beg your pardon?

Q. It is the way you look at the ice that determines it?

A. Yes, whether it is clear ice or rime ice. This was clear ice caused from water vapor that has formed on the rivets, which dripped down and frozen when it dripped down, caused the icicle.

Q. I understood you to say you examined the upper part of the left wing but not the upper part of the right wing, is that correct?

A. Yes, sir.

Q. You didn't examine the upper part of the right wing because it was too dark?

A. Yes, sir.

Q. As a matter of fact, it was a pretty dark night, wasn't it?

A. Yes, sir. Visibility was very limited. [198]

Q. You got your information concerning the underside of the wing as well as the upper side of the left wing by feeling the ice?

A. No, sir, not the upper side of the left wing. The automobile lights of my car was in such position that I could see up the slope of the wing, like this, and my car was here, and I could see up the slope because of the light reflecting on it.

Q. You saw the upper part of the left wing?

A. Yes, sir.

(Testimony of John O. Vineyard, Jr.)

Q. But you did not see the bottom part of either the right or left wing? A. That's right.

Q. Why did you say it was the clear ice when you defined clear ice as being the kind you see through?

A. It is a smooth ice. You can feel between spaces in the under part of the wing. It is smooth. Whenever you have a frost or a rime ice, it is crystal, little particles that will shed off immediately.

The Court: How do you spell the term that modifies the less transparent ice you were speaking of?

The Witness: R-i-m-e.

The Court: Do you wish the statement you were making read back to you so you can pick it up?

The Witness: Yes. [199]

(Last answer read by reporter.)

Q. Did you answer the question?

A. Well, not completely. To elaborate a little bit more, your clear ice is tougher, tougher to break, I mean harder to break off than rime ice would be, and would be sharper on the points. Say for an icicle, a small icicle, it would be sharper and tough, where rime ice or heavy frost would not be so tough and you could knock it off very easily with your hand.

Q. As far as the icicles are concerned, they were minute icicles on the rivets, isn't that right?

A. Very. They were very small.

(Testimony of John O. Vineyard, Jr.)

Q. And as far as the ice which you felt is concerned, apart from the rivets, it was very smooth?

A. Well, yes. I would say yes.

Q. You stated a while ago that if there was a good deal more ice on the left than on the right side of the wing, you might have a wing stall?

A. That is right, if there was ice.

Q. But if the ice was equally on the left and right wing, that would not be the case?

A. That is right.

Q. You don't know whether there was more ice on the left than on the right wing, do you?

A. From my knowledge, no, sir, because I didn't inspect [200] the top surface of the right wing.

Q. So that you have no knowledge at all as to whether there was more on one than on the other?

A. That is correct.

Q. Just a word more about Mr. Chavers' pilot proficiency. He had an instrument rating?

A. Yes, sir.

Q. Would you tell the Court just briefly what an instrument rating is?

A. An instrument rating is a rating that is issued by the Civil Aeronautics Administration for proficiency, to establish the proficiency of a pilot flying on actual instrument conditions.

Q. As far as you know, he was certified in every respect as a proficient pilot?

A. As a proficient pilot to his ratings, yes, sir.

Q. And his ratings covered the matter of flying a DC-3 type aircraft?

A. Yes, sir.

(Testimony of John O. Vineyard, Jr.)

Q. You mentioned as a possible cause of the accident the matter of overloading. Could you tell us how much weight there was in that airplane?

A. No, sir, I couldn't.

Q. As a matter of fact, if you had to give an estimate, you couldn't give an estimate honestly within 1000 pounds, [201] could you?

A. I think I could.

Q. But it would be a pure matter of estimate, wouldn't it?

A. I would form my estimate on all the evidence that I have heard in other cases and the case here.

Q. Confining your judgment on just what you have heard, will you tell us specifically what part of the evidence you have in mind, basing your opinion that overloading may have been a cause?

A. Not what I heard?

Q. At this trial, yes. What witness it was, when he testified.

A. No, not in this case, and I never stated that in my testimony a while ago.

Q. I realize you didn't but I want to have you clarify just what you did say, so that actually there is no basis so far in anything that you have heard in this case, apart from what you have heard in other cases, that would be a basis for any honest, reliable judgment that there was any overloading, isn't that true?

A. The latter part of your statement there, I would like to understand that better, about halfway through your statement.

(Testimony of John O. Vineyard, Jr.)

Q. To simplify it——

A. Did you say this case or any other case?

Q. No, this case alone. [202]

A. That is correct, I haven't.

Q. You stated that you had flown approximately 50 hours under some kind of icing conditions, is that correct? A. Yes, sir.

Q. Of that number of hours, how many were flown in a DC-3? A. The majority of it.

Q. Say 25?

A. It would be more than that. It would be up near 35. I have records of that, and I could give a more accurate figure, but that is appropriate.

Q. We just want an approximation. Did you observe other aircraft taking off from the same runway there shortly before this accident?

A. No, sir.

Mr. Matthews: Objected to, improper cross-examination.

The Court: The objection is sustained.

Q. Would you undertake to tell this Court that this particular airplane that was involved in this crash burned or did not burn a stated number of gallons per hour?

A. No, sir, I could not say.

Q. As a matter of fact, the number of gallons consumed per hour in a particular engine may vary considerably, is that true or not?

A. That is correct, yes, sir. [203]

Mr. Cluck: That is all.

Mr. Matthews: That is all.

The Court: You may step down. Have you another witness whose testimony will be short, or do you not have such a witness?

Mr. Matthews: Your Honor, I do not believe we have a short witness.

The Court: How many more witnesses have you to call? I wonder if we are on schedule with the trial.

Mr. Matthews: We have about four more.

The Court: What is your estimate as to whether the trial is on schedule at this stage?

Mr. Matthews: I think we will finish by noon tomorrow.

The Court: That is the third day, during which the plaintiff has taken about one-half day. Do you consider that the trial is on schedule or behind schedule?

Mr. Matthews: Your Honor, when we made the estimate of the time, counsel stated they thought their case would only take about thirty minutes, and we based our time accordingly, and that they would have very brief rebuttal, is that right?

Mr. Cluck: That is right.

Mr. Matthews: I think we should conclude tomorrow.

The Court: What do plaintiffs think about the prospect of concluding this trial tomorrow? [204]

Mr. Cluck: You understand, your Honor, this is just a matter of estimate. I would think we would complete the testimony by the end of the day tomorrow, provided defendants complete their part of

it by noon. That would leave the matter of argument. I think this is one of those cases where there should be a fair opportunity to present argument on the part of both sides, whatever time the Court thinks would be equitable, the following morning or any time it is convenient.

The Court: Court will be recessed until tomorrow morning at 9:30.

(At 4:55 o'clock p.m., Wednesday, October 11, 1950, proceedings adjourned until 9:30 o'clock a.m. Thursday, October 12, 1950.)

Seattle, Washington

October 12, 1950, 9:30 o'Clock A.M.

The Court: You may proceed.

VICTOR M. GANZER

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews: [205]

Q. Will you state your name, please?

A. Victor M. Ganzer.

Q. Where do you reside?

A. The address here, Seattle, Washington, 416 West Lee Street.

Q. What is your present occupation?

A. I am an associate professor of aeronautical engineering at the University of Washington.

(Testimony of Victor M. Ganzer.)

Q. What subject do you teach?

A. I teach aerodynamics.

Q. How long have you been an instructor in aerodynamics at the University of Washington?

A. It will be four years the first of January, 1951.

Q. What education or training have you had in aerodynamics?

A. I have a degree in mathematics, bachelor's degree in mathematics, and a Bachelor of Science degree in aeronautical engineering. The educational background, you mean?

Q. Yes, what college or university?

A. University of Washington.

Q. Upon completion of your formal education, what experience, if any, have you had in the practical application of aerodynamics?

A. I worked for the National Advisory Committee for Aeronautics at Moffett Field, California, for three years, from 1941 to 1944, during which time I was employed as an [206] aerodynamist in the high speed wind tunnel. In 1944——

Q. Before you leave that, what is this National Advisory Committee for Aeronautics? Will you tell the Court what its functions are and how it is set up?

A. The National Advisory Committee for Aeronautics is a committee appointed by the President of the United States, and it is the duty of that committee to hire people, engineers and other technicians, to perform aeronautical research. It is a

(Testimony of Victor M. Ganzer.)

Government organization, and the results of this research are made public in general, except in times of war, for instance, made public for the use of the industry and for the use of the military, and its prime duty is to perform research, aeronautical research.

Q. State whether or not that research includes the study of the flying characteristics of airplanes?

A. Yes.

Q. And safety factors? A. Yes.

Q. Following your tour of duty with this organization, by whom were you employed?

A. I was employed by the Boeing Aircraft Company—Boeing Airplane Company, now—for three years, from 1944 to 1947.

Q. In what capacity?

A. I was in the aerodynamics group and worked on the XB-47 airplane during all of that time. [207]

Q. What was your next assignment?

A. From there I went to the University of Washington.

Q. And have been there ever since?

A. Have been there since.

Q. Have you had any occasion to make any study or make any wind tunnel experiments or to familiarize yourself in any way with the effect of ice, frost or other foreign substance on the surface of the wing of an airplane?

A. One of the standard tests we did at the National Advisory Committee for Aeronautics was to simulate what could have been ice or other foreign

(Testimony of Victor M. Ganzer.)

substance on the top surface of the wing, by essentially gluing onto the wing particles. We used carborundum of a certain grain size on the upper surface of the wing, near the leading edge of the wing, and the purpose of that was to obtain the aerodynamic characteristics of these substances. It could have been ice particles or mud particles or any other particles that were adhering to the upper surface of the wing.

Q. Just how did you affix this carborundum to the upper surface of the wing?

A. In one of two ways. We would either paint glue on the leading edge of the wing, just with a brush, and then sprinkle the particles onto the glue so that it would adhere, or sometimes we sprinkled the particles on some Scotch tape, the transparent tape, and fastened the transparent tape to [208] the leading edge of the wings. Either of them had the same effect, as far as we could determine.

Q. The same effect as frost or ice, rime ice?

A. I mean the manner of attaching the particles didn't seem to have any effect on the aerodynamic characteristics. The particles themselves are the things that had the aerodynamic effect.

Q. This carborundum, can you give us in a manner which the layman can understand just how coarse or fine these particles were that you put just behind the leading edge, wherever it was?

A. The NACA had a standard roughness, and that consisted of particles of carborundum which were of an average size of .011 inches, slightly over

(Testimony of Victor M. Ganzer.)

one-hundredth of an inch on a 24-inch or two-foot chord model, and we tried to keep that general standard. If we reduced the size of the model to one-foot chord, we would try to get carborundum particles smaller than that, but that was the standard roughness, .011 inches on a two-foot chord model.

Q. That, you say, was sprinkled on the wing just behind the leading edge?

A. Yes, between 0 and 10 feet chord, in the first 10 feet of the wing, upon the top surface, on the leading edge.

Q. Then you would put this model in the wind tunnel which would simulate flying conditions?

A. That is right. [209]

Q. Will you state to the Court what effect, if any, this foreign substance that you have described had upon the flight characteristics or the lifting qualities of the wing of the airplane?

A. We found that at low angles of attack, which would correspond to very high speeds of the airplane, the effects were mostly in drag. The lifting effect, the lift was reduced slightly but not to a very large extent, but as the angle of attack increased, which would correspond to a high angle of attack and a low flying speed, that the lifting qualities were reduced to a very marked extent and the drag, of course, went up accordingly. Our conclusion would be——

Q. Before you leave that, is a plane in take-off at a high angle of attack or a low angle of attack?

(Testimony of Victor M. Ganzer.)

A. The airplane in take-off is at a comparatively high angle of attack.

Q. At a comparatively high speed or low speed?

A. I would say a low speed.

Q. State whether the effect of this foreign substance on the wing—what would it be in take-off, under take-off conditions? What would be its effect?

A. The effect would be to reduce the amount of lift that could be obtained from the wing at a certain speed. In other words, at a given speed one couldn't get as much lift from the wing with the foreign substance on as he could [210] without the foreign substance on.

Q. State whether or not this amount of carborundum which you placed just behind the leading edge of the wing, the first ten feet, to what extent would that affect the lifting qualities of the plane while in a take-off position?

A. Well, we found that the amount of lift reduction, the maximum lift reduction, was in the order of 20 to 30 per cent, depending upon the wing section, the wing profile, with an average of around 25 per cent. That was in the maximum lift you could obtain from a wing at any speed.

Q. State whether or not that condition would be aggravated to any extent by a loading of the plane in excess of its maximum take-off weight?

Mr. Cluck: We object to the question, your Honor, inasmuch as there is no evidence yet that there was any overloading in this case.

Mr. Matthews: We believe there is, your Honor.

(Testimony of Victor M. Ganzer.)

We have not spelled it out to the Court, but I believe with the manifest, the dry weight of the plane, the amount of gasoline, that we will be able to show the Court, based on the testimony that is now in evidence, that the plane was overloaded, and I can assure the Court that we will follow it up. This witness is from the University, and would like to be dismissed as soon as possible.

The Court: That objection is overruled, but I will [211] say the whole line of testimony is of no practical assistance to the Trial Court. In making a record for the Appellate Court, you may proceed. I will not deny you that privilege. I wish to hear evidence as it exists in this case, rather than evidence of experimentations. I will not deny you the privilege of making your record for the benefit of any reviewing court, but I do not wish to take the time of the Trial Court to pile up a lot of useless testimony, useless to the Trial Court. You may proceed.

Q. (By Mr. Matthews): What is the question?

(Last question read by reporter.)

A. Loading an airplane to a higher weight than its maximum take-off weight would mean that one would have to go faster in order to take off safely. I am not sure whether one could say that that aggravates a condition. It just means that the pilot should get more air speed before he takes off, if the plane is overloaded.

Q. Would this be a fair statement, that you

(Testimony of Victor M. Ganzer.)

would have less efficiency, less lifting qualities of the wing and you would have more load to lift?

A. That is right, with the ice.

Q. Assuming that you had a DC-3 airplane—you are familiar with that type airplane?

A. Yes, sir. [212]

Q. —and that there was an accumulation of rime ice and frost in patches approximately six inches wide and 18 inches long spotted irregularly across the surface of the left wing of an airplane; that underneath on the underneath surfaces of the wing there were icicles hanging down from the rivets which hold the skin of the wing onto the frame, and that these icicles were approximately a quarter of an inch in length; and that the airplane attempted a take-off, we will say for my first question that it was loaded to its maximum take-off load: what, in your opinion, would be the effect on such an airplane of this icing condition that I have described on the lifting characteristics and the performance of the airplane during take-off?

Mr. Cluck: I object, your Honor, to that question. In the first place, the inquiry was as to the effect if ice was on the upper surface of the left wing, clearly implying that the ice was not on the upper surface of the right wing, whereas Mr. Vineyard, who was the witness offered by counsel on that subject, said he couldn't say what if any ice was on the right wing because it was too dark, he saw the ice on the left. Therefore, the question in the absence of any testimony ice was on one wing

(Testimony of Victor M. Ganzer.)

and not the other, is clearly unfair and contrary to the evidence. Referring to the icicles, the same witness, Mr. Vineyard, testified, if my recollection is correct, [213] that they were minute icicles, one-eighth to one-quarter of an inch long from the rivets. Therefore, that information should be clarified. Finally, we submit that the plane had a maximum take-off load, that those terms maximum take-off load are ambiguous, have not been defined, may mean the load which if exceeded would tax the structural capacity of the aircraft, they may mean some load specified in some C.A.A. regulation, or they may mean one of several different things.

The Court: My view of the objection is that it relates to only one absent factual matter which may not correctly be stated in the suppositious question, namely, that one relating to the wing which the previous witness did not examine because of darkness. I think the condition of the question relating to that detail should be an appropriate assumption that no knowledge as to the icing condition on the surface of that wing was available, and I believe that would be more faithful to the condition of the evidence in the case.

As to the other matter about the icicles, the Court is not going to sustain objection upon that ground, but I think counsel in calling to the witness' attention that condition ought to be as careful as possible. The Court thinks that cross-examination ought to take care of any studied inaccuracies claimed by objecting counsel in [214] that respect, but I think

(Testimony of Victor M. Ganzer.)

you should consider the objection as to that and try to be as faithful in your submitting question in the detail as to the evidence on that point as possible. I am not prepared to say that one might not argue one way or the other about that detail. I think you should amend the question as to the condition so far as ice is concerned on the wing which was not inspected by the previous witness.

Q. (By Mr. Matthews): I would like to add to my question this amendment, that an inspection was made of the underneath surfaces of the wing and there was found these icicles varying in length from a quarter to an eighth of an inch in length hanging down from the rivets, that was clear ice caused by precipitation of water which had dripped down and frozen; and that the left wing was examined and these patches of rime ice and frost were found just behind the leading edge on the left wing, but no examination was made of the right wing of the airplane; what effect, if any, would the condition which I have described, in your opinion, have upon the flying characteristics of the plane during take-off?

A. Well, in my opinion, with regard to the icicles, first I would say that such a condition would not be very serious as far as the lift of the wing is concerned, on the underface of the wing, that is. The icicles on the underface of the wing would increase the drag of the airplane, would [215] require more power to be used to get up to a certain speed to take off, and also more power to fly, but

(Testimony of Victor M. Ganzer.)

probably would not have a very serious effect on the lift.

However, the upper surface of the wing is the surface which is extremely sensitive, and any ice or rime or particles of any kind on the upper surface of the wing are extremely important, and they are the ones which reduce the lift on the airplane. When taking off, if the pilot tried to take an airplane off at a speed which he was used to taking that airplane off, if he took off by an air speed indicator and if he had ice on the wings and did not know what the effect of that ice was going to be and did take off at that speed and pulled the airplane up to take off, he would find that the lift was not sufficient. The airplane may take off; it may just straggle through the air, depending on how much lift he loses. With respect to the right and left wing, all I could say would be whichever wing had more ice would probably be the most affected.

Q. You say most affected. Do you mean that would be the wing that would be inclined to stall first?

A. That would be the one that would lose the most lift, that's right.

Q. In your opinion, would the condition which I have described materially affect the flying characteristics of the airplane during take-off? [216]

A. I would say yes, that ice on the upper surface of the wing would have a very serious effect on the characteristics of the airplane during take-off, because take-off is a delicate time. The airplane is at

(Testimony of Victor M. Ganzer.)

a high angle of attack and it is trying to get a high lift coefficient, a high lift in order to take off, and any reduction in lift would be quite serious at that time.

Mr. Matthews: You may inquire.

Cross-Examination

By Mr. Cluck:

Q. Will you tell us what carborundum material is?

A. As far as I know, it is a natural material from which they make carborundum stones. The Court is probably familiar with carborundum stones.

Q. That is the stuff they put on sandpaper?

A. They use for grinding wheels, that is right. It is a rough granulated substance which comes in a powder and will be molded into a grinding wheel or put on sandpaper.

Q. You took that, I suppose, because the crystals suggested frost? A. That's right.

Q. What condition, in answering the last question asked you by counsel concerning the upper surface of the wing, what condition did you assume as to presence of ice or snow on this particular DC-3 aircraft? [217]

A. I am assuming, when I say that ice or snow has a very serious effect, that the ice or snow is toward the forward portion of the wing. The effect of any roughness on the upper surface of the wing is much more serious towards the front of the wing,

(Testimony of Victor M. Ganzer.)

toward the leading edge of the wing, than toward the trailing edge of the wing, and any ice or snow or any accumulation near the front of the wing on the upper surface is extremely serious.

Q. The effect of ice or snow on the rear portions would be considered less serious?

A. That's right.

Q. How much ice or snow did you assume was on the wing of this particular airplane?

A. I don't—I haven't made any assumption as to that. All I can say to that is that from our wind tunnel tests, if those are permissible, that a very small portion of substances is sufficient to have a serious effect. We have made wind tunnel tests with about five or ten per cent of the surface covered with these particles, in other words, a very few particles, and that had a very serious effect on the aerodynamic characteristics of the wing. Five or ten per cent of the surface between the leading edge, that is.

Q. The extent of the effect varies considerably with the type of aircraft and the manner in which it is flown, isn't that true? [218]

A. Well, I would say no. I think that question would require some interpretation.

Q. Let's refer to type of aircraft. You recognize that there are very different types of air foils on different types of aircraft? A. That is right.

Q. Each has its own flight characteristics within wide variations?

(Testimony of Victor M. Ganzer.)

A. Well, not as wide as you might imagine, I think.

Q. You wouldn't say a B-17 flies the same as a pursuit plane, would you?

A. I would say roughly yes, that in many attitudes a B-17 flies roughly the same as a pursuit airplane.

Q. Did you make any experiments with DC-3 type aircraft?

A. We have made experiments with DC-3 type wing, the air foil section itself, but not with DC-3 type airplane, that I have been personally acquainted with, at any rate, but with the type, their wing section, yes.

Q. But you made no experiment with the aircraft itself? A. Not with the aircraft.

Q. Have you ever piloted a DC-3?

A. No, I haven't.

Q. Have you ever investigated any accidents concerning icing conditions on any such DC-3 aircraft? A. No, I haven't. [219]

Q. Did you make any study of this particular accident at all, aside from making your information available from the experiments you conducted?

A. I, personally, have not studied the accident, no.

Q. So that you actually know nothing about it?

A. What do you mean, I actually know nothing about it?

Q. I mean just that, except as you may have heard it from third parties?

(Testimony of Victor M. Ganzer.)

A. I would say that all I know about the accident is what I have read.

Q. It is true, isn't it, that the lift on any air foil is greater on the upper than the lower surface? What I mean is that the upper surface is more important as far as its lift characteristics are concerned in terms of percentage of lifting effect?

A. I don't think so. You can't have an upper surface without a lower surface, and you can't have any lift without both surfaces, actually. Technically not. It is a common supposition that the upper surface is the most important, but that may be due to the fact that the pressures on the upper surface of the wing will vary more from atmospheric pressure, let's say, than do the pressures on the lower surface of the wing, but the lift comes from the pressure across the wing from the upper to the lower, so you have to have both surfaces in order to get lift. I might say, in line with this [220] question, that the velocities are higher on the upper surface of the wing, and that is where this statement comes from, and since the velocities on the upper surface are higher, that is why they are more subject to being disturbed by particles than on the lower surface.

Mr. Cluck: That is all.

Mr. Matthews: That is all.

The Court: Step down. Call another witness.

Mr. Matthews: May Professor Ganzer be excused, your Honor?

The Court: Any objection?

Mr. Cluck: No, your Honor.

The Court: Professor Ganzer is excused.

A. ELLIOTT MERRILL

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Wilkerson:

Q. Will you state your name, please?

A. A. Elliott Merrill.

Q. Where do you reside?

A. 10843 Sixth Avenue South, Seattle.

Q. What is your age? [221] A. 49.

Q. Where are you presently employed?

A. By the Boeing Airplane Company.

Q. What is your position with the Boeing Airplane Company?

A. I have charge of the flight test section.

Q. Will you explain to the Court what duties you have in that capacity?

A. Well, I have charge of all the flight testing work on Boeing airplanes here in Seattle.

Q. What is your educational background?

A. Well, I am a graduate engineer, University of Washington.

Q. In what year did you graduate?

A. 1926.

Q. What has been your experience since that time?

A. I have spent all of my time since then as a pilot in various capacities, both military and commercial.

(Testimony of A. Elliott Merrill.)

Q. How many hours of flight experience have you had? A. About 6,500.

Q. How long have you been with the Boeing Airplane Company? A. About ten years.

Q. Has your capacity with Boeing been the same during that ten years? A. Yes.

Q. What effect does ice on the wings of an airplane have on its flight characteristics? [222]

A. Well, it affects flight characteristics in various manners, depending on the nature of the ice and the amount of the ice. Normally or generally it always spoils the flight characteristics of a wing.

Q. Just how does that come about?

A. By disrupting the smooth airflow over or under the wing.

Q. Does it affect the lifting power of the wing?

A. Yes.

Q. In what way?

A. The lifting power of a wing again depends upon the smoothness of the airflow over the wing, and anything that disrupts the smoothness reduces the lift on the wing; two reasons, it increases the drag, which increases the turbulence, reduces the lowered air pressure over the wing.

Q. Does it affect or change the speed at which the airplane will stall? A. Yes, sir.

Q. In what degree?

A. Well, it always increases the speed at which the air foil—it lowers the speed at which the air foil will stall.

(Testimony of A. Elliott Merrill.)

Q. Does ice have a greater effect on take-off than on subsequent flight of the airplane?

A. Yes, it does. [223]

Q. You heard the testimony of Mr. Vineyard yesterday, did you not? A. Yes, sir.

Q. With respect to the condition of the airplane at the time of the attempted take-off and the condition of the weather at the time this plane NC 79025 attempted to take off on the night of January 2, 1949, at Boeing Field, did you not?

A. Yes, sir.

Q. You are acquainted with the runway at Boeing Field? A. Yes.

Q. You saw the airplane the next morning, on the morning of January 3rd? A. Yes.

Q. How far is it from the north end of Boeing Field to the revetment hangar where the plane crashed? A. Probably 4,000 feet.

Q. Assuming that the condition of the airplane and the weather was as stated by Mr. Vineyard; and that the temperature as reported by the Weather Bureau at Boeing Field was 28 degrees: Would you be in a position to formulate an opinion as to whether it would be safe practice to take off an airplane with a load of passengers under those conditions? A. Yes.

Q. What is your opinion? [224]

A. My opinion is that it is a hazardous undertaking.

Q. Assuming the facts assumed in my previous question with respect to the weather and condition

(Testimony of A. Elliott Merrill.)

of the airplane; and assuming that during the attempted take-off the motors of the airplane sounded as though they were operating normally; and that after the crash and fire of the airplane the motors, propellers and instruments were inspected and no evidence of mechanical failure found: Would you be able to formulate an opinion as to the cause of the crash? A. Yes.

Q. What is your opinion?

A. My opinion is that the airplane never reached a safe flying air speed.

Q. Why did it not?

A. My opinion there would be that the pilot attempted to fly the airplane at too low an air speed. He did not have a proper air speed to fly the airplane under the existing conditions.

Q. By the existing conditions, you mean the ice and weather and the load? A. Yes, sir.

Mr. Wilkerson: You may cross-examine.

Cross-Examination

By Mr. Cluck:

Q. Mr. Merrill, your connection with this accident has [225] been confined to the testimony you have heard here in court, is that it?

A. Yes, sir.

Q. Have you been in attendance right along?

A. No, I don't believe so. I was here yesterday afternoon for the first time.

Q. How long were you here then?

A. All afternoon.

(Testimony of A. Elliott Merrill.)

Q. Apart from what counsel may have told you, that is the extent of your knowledge of the accident, is it? A. No, sir.

Q. You have read about it?

A. I have read about it and also talked to some of the people involved the next morning.

Q. Assuming that a plane was overloaded by two tons, to take an extreme case, would there be anything in that situation that would cause it to lose its right and left directional course if the rudder control were available? A. No, I don't believe so.

Q. In other words, overloading has nothing to do with keeping a plane on the course of a runway?

A. Generally, no.

Q. Just to take another extreme illustration, if you took blocks of ice a foot thick, piled right across the top wing of an airplane, and another set across the bottom of a [226] wing, would that drive the pilot off his right and left directional movement as long as he had rudder control?

A. I think the way you put it, it would.

Q. Take any case of extreme icing, as long as the ice is uniformly distributed over the air foil the pilot still has control of his plane in taxiing, doesn't he?

Mr. Wilkerson: I don't believe, if the Court please, the evidence shows the ice was uniformly distributed all over the airplane. The testimony of Mr. Vineyard was that there were spots and patches and irregular forms and shapes scattered over the plane.

(Testimony of A. Elliott Merrill.)

The Court: Read the question.

(Last question read by reporter.)

The Court: I ask examining counsel to take the opportunity of making any response which he thinks he should to the objection stated.

Mr. Wilkerson: Certainly not proper cross-examination, your Honor.

Mr. Cluck: On the effects of ice on the air foil.

The Court: The objection is overruled. This is cross-examination, and any further redirect that needs clarification on the facts in this question submitted by the cross-examiner may be gone into by counsel for defendants. Read the question.

(Last question read by reporter.) [227]

A. That is a rather difficult question to give a simple answer to. I would put it this way, the ice on the wing, if it was uniform, would have no effect on rudder effectiveness.

Q. It wouldn't have any effect then on right and left directional control with the rudders?

A. Well, I can't answer that simply, either. Generally the rudder is not affected, that is, its effectiveness is not determined by any ice or amount of ice on the wing. However, the drag on the wing can be changed and altered by the amount of ice on the wing, and that requires, of course, proper operation of the rudder.

Q. And up to the time a plane gets flying speed on either wing, the same thing would apply, would it not?

A. Yes, sir.

(Testimony of A. Elliott Merrill.)

Q. What are some of the causes of an airplane that might cause it to veer right or left from the runway in course of take-off, apart from icing or overloading?

Mr. Wilkerson: I object to that as not being proper cross-examination.

The Court: The objection is overruled.

The Witness: There are several causes. Cross winds will sometimes cause an airplane to veer from a course down the runway. Sometimes an uneven smoothness of the runway surface may cause [228] it.

The Court: Are you likely to get such a condition as those you last described in a so-called experimental wind tunnel?

The Witness: No, sir, I don't believe so.

The Court: Have you seen any experimental wind tunnel where those forces or factors were applied to the experiment, those cross wind factors?

The Witness: There are some tests conducted in wind tunnels in which the airplane is altered in its position to study the effect of what would be a cross wind, yes, sir. That is not very common.

The Court: In other words, suppose you were using this room as a wind tunnel for an experiment and the room had the necessary openings to conduct either at one end or the other or at both ends, would you be likely to get a cross current or cross wind effect comparable to that which is sometimes experienced out in the open on open airfields?

The Witness: No, sir, I don't believe so.

The Court: If you were flying an airplane in a

(Testimony of A. Elliott Merrill.)

canyon or a gorge like the Columbia River Gorge, the same velocity of wind might have a different effect upon it than the same velocity of wind would have on the plane flying over open desert country, would it not?

The Witness: Yes, sir. [229]

The Court: You may inquire.

Q. (By Mr. Cluck): What are some of the other possible causes?

Mr. Matthews: I object to the question, your Honor, as being too speculative, remote.

The Court: The objection is overruled.

Q. What about the matter of a runaway prop on either engine?

A. That would produce a yawing effect.

Q. Your engines both might be functioning normally and cause a failure of your propeller governor, one prop may turn faster than the other, is that correct?

A. Yes, sir.

Q. The one that turns faster will have a tendency to pull that side of the airplane off the runway unless the engines are immediately stopped, isn't that correct?

A. Yes, sir.

Q. What about the matter of tabs? Can you tell us what a rudder tab is, for example?

A. Yes. Airplanes usually when they are completed are not perfectly symmetrical, and as a result it is necessary to trim the controls, the flight controls, in order to make the airplane fly straight and level or directionally straight, laterally level, so small auxiliary surfaces are fastened onto the main

(Testimony of A. Elliott Merrill.)

controls which the pilot uses to make slight [230] trim changes in the airplane's attitude or direction. Those are commonly known as tabs.

Q. In the case of a rudder tab, if it is turned inadvertently on take-off for full left or right position, what is the effect on the airplane?

A. That would tend to turn the airplane, yes.

Q. In the direction in which it is set?

A. No, it turns it in the opposite direction.

Q. The opposite direction, excuse me. What about the automatic pilot? What is the effect of an automatic pilot if it should be on during the course of take-off and the heading on the automatic pilot, the heading for which it is set, is different from that of the runway?

A. If it was possible to have the automatic pilot connected to the controls during a take-off and the automatic pilot had not been stabilized or final adjustments made in it, it would undoubtedly cause the airplane to veer from the runway or to change the attitude of the airplane.

Q. You say "if possible." It is possible to have the automatic pilot on during the course of take-off if a pilot should overlook it, isn't that true?

A. Some automatic pilots can be and some cannot.

Q. Do you know about the automatic pilot on this particular DC-3 airplane?

A. No, I do not. [231-2]

Q. What is meant by an instrument take-off?

A. It is a take-off commonly understood to re-

(Testimony of A. Elliott Merrill.)

quire the pilot's complete attention to his instruments to determine the attitude and direction of the airplane and not normally use outside visual reference.

Q. A take-off, in other words, solely by reference to instruments in the cockpit instead of contact with outside objects, is that it? A. That is right.

Q. When we speak of an airplane flying on instruments, we mean essentially that as far as flight is concerned? A. Yes.

Q. In the course of take-off under instrument conditions, the failure of any one of the directional instruments would affect the course of take-off, would it not, or might?

A. It might; not necessarily, though.

Q. If the take-off were made on contact, that is, with reference to visual runway conditions, and so forth, what would be the effect of stoppage of your windshield swipes?

A. It would undoubtedly reduce the transparency of the windshield and to some extent reduce the pilot's vision.

Q. In your rather extensive experience in aircraft, state whether or not it does not happen more or less frequently that an airplane which passes inspection nevertheless experiences some failure in some mechanical part a relatively [233] short time after the inspection is made?

A. Yes, that happens occasionally.

Q. That can come from metal fatigue, can it not?

A. It could.

(Testimony of A. Elliott Merrill.)

Q. That is, the metal approaches a point of wear when it gives out at an unpredictable moment, isn't that true? A. That is right.

Q. And in any mechanism having a number of moving mechanical parts, the possibility of that is proportionately increased, is that not true?

A. Yes.

Q. In other words, the more complex this particular mechanism is, whether it is an automobile, sewing machine or airplane, the more likely in general—the more substantial is the possibility of failure at some unpredictable time, despite inspections?

A. Yes.

Mr. Cluck: That is all.

Redirect Examination

By Mr. Wilkerson:

Q. Mr. Merrill, counsel has inquired in detail concerning many things which might possibly happen in the taking off of an airplane. I will ask you if in forming your opinion concerning the cause of the crash, you considered the possibility of all those things happening? [234] A. Yes, I have.

Mr. Wilkerson: That is all.

The Court: You may be excused. Call the next witness.

Mr. Wilkerson: I will ask Court and counsel if Mr. Merrill may be excused?

Mr. Cluck: Yes.

The Court: Mr. Merrill is excused.

JOHN B. SWEET, JR.

called as a witness by and on behalf of defendants, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews:

Q. Will you state your name?

A. John B. Sweet, Jr.

Q. Where do you live?

A. Edmonds, Washington.

Q. What is your business?

A. I am an aviation insurance underwriter.

Q. By whom are you employed?

A. D. K. MacDonald & Company.

Q. In what department?

A. In their aviation insurance department.

Q. How long have you been there? [235]

A. Since February of 1946.

Q. Are you familiar with the coverage that was written on the airplane owned by Mr. Leland that has been the subject matter of this litigation, a DC-3 No. 79025? A. I am.

Q. Are you familiar with the records and files of D. K. MacDonald concerning that coverage?

A. I am.

Q. State whether or not all of the endorsements, amendments to the matter pertaining to that coverage are kept in one file in your office?

A. They are.

Q. Are you familiar with that file?

(Testimony of John B. Sweet, Jr.)

A. Yes.

Q. If any written consent was ever given by D. K. MacDonald to waive any of the terms and conditions of that coverage, would a copy of that endorsement be in the file with which you are familiar?

A. Yes, it would be.

Q. If an application had been made for the consent of D. K. MacDonald for a waiver or extension in connection with compliance with fireproofing requirements, would a copy of that document be in the file to which you have referred?

A. Yes, it would.

Q. In order to give such a consent or waiver, state [236] whether or not D. K. MacDonald has the right to give that consent or waiver locally or whether or not they must apply to the underwriters, Lloyd's of London?

Mr. Cluck: We object to that question as calling for a legal conclusion, your Honor.

The Court: Has either one any authority on the question?

Mr. Matthews: It is a matter, your Honor, of the contract existing between D. K. MacDonald and the underwriters of Lloyd's, what they would do, whether they would have to apply to the open market at London or whether they have authority to grant it locally. It goes to the extent of authority, what they would do under the circumstances of such application.

The Court: The objection is sustained, without

(Testimony of John B. Sweet, Jr.)

prejudice to your right to ask him if there was any such authorization given here.

Q. (By Mr. Matthews): Was any such written authorization ever given? A. No.

Mr. Matthews: That is all.

Mr. Cluck: What authorization were you referring to, counsel, when you asked this last question?

Mr. Matthews: In connection with the authorization to extend or waive—you call it extension—we believe it [237] amounts to a waiver of the CAA requirements.

Mr. Cluck: Authorization by whom to whom?

Mr. Matthews: By D. K. MacDonald & Company on behalf of the underwriters of Lloyd's in connection with compliance with fireproofing requirements of the airplane to Mr. Leland, the named assured.

Cross-Examination

By Mr. Cluck:

Q. When you were asked this last question concerning authorization from D. K. MacDonald & Company to Leland and you gave the answer you did, you were referring to written authorization, were you not? A. That is right.

Q. State whether or not you know anything as to what, if any, oral authorization may have been given.

Mr. Matthews: Your Honor, the policy provides that authorization must be in writing. We therefore object.

(Testimony of John B. Sweet, Jr.)

Mr. Cluck: Which, however, can be waived by knowledge and oral acts.

Mr. Matthews: There is no allegation in the reply that any oral authorization was given; not within the issues; incompetent, irrelevant and immaterial.

Mr. Cluck: It is material on this particular issue and was covered in the opening statement of counsel.

The Court: The objection is overruled. [238]

The Witness: I know of no oral authorization.

Q. Who in the office of D. K. MacDonald & Company was handling this particular matter as far as any contacts between that office and Leland were concerned?

A. Well, both myself and Mr. Hanson, who is the head of the aviation department.

Q. It is true, isn't it, that your office utilized the services of Culliton & McDonald in respect to the servicing of this and other policies?

A. That is correct.

Q. And that the practice was for the insured to clear all such matters through Culliton & McDonald?

A. Yes.

Q. And Culliton & McDonald regularly would then communicate with you?

A. That is correct.

Q. And you in turn would clear in whatever way you saw fit with Lloyd's of London?

A. That is correct.

Q. And this was all done under the regularly

(Testimony of John B. Sweet, Jr.)

established arrangement you had with Lloyd's of London? A. That is right.

Q. State whether it isn't a fact that in this instance Mr. Leland took this particular matter up, namely, the matter of getting an extension of time from the CAA for compliance [239] with that special regulation for installation of fire-resistant materials with Mr. Culliton of Culliton & McDonald?

Mr. Matthews: Objected to, incompetent, irrelevant and immaterial.

The Court: The objection is overruled.

The Witness: I would know nothing of that.

Q. You don't know? A. No.

Mr. Cluck: That is all.

Redirect Examination

By Mr. Matthews:

Q. Did Mr. Culliton or Mr. McDonald or Culliton & McDonald ever communicate with you any matters pertaining to any waiver or extension of fireproofing regulations?

A. Not that I can recall, no.

Mr. Matthews: That is all.

Recross-Examination

By Mr. Cluck:

Q. You do not deny that they did?

A. I cannot recall.

The Court: The Court would like to know if there is any business relationship between Culli-

(Testimony of John B. Sweet, Jr.)

ton & McDonald and D. K. MacDonald & Company.

Q. You stated in that connection that your firm utilized——

Mr. Matthews: Just let him answer the [240] Court's question.

The Court: I wish the proper question addressed. The Court was not framing a question.

Q. (By Mr. Cluck): You testified, as I understood it, that your firm utilized Culliton & McDonald in respect to the servicing of insurance policies which were underwritten by your firm?

A. That's right.

Q. And that the insured would transmit any information or take up any problems in connection with CAA regulations or otherwise with the office of Culliton & McDonald?

A. That is correct.

Q. And then they in turn regularly would transmit such information or problem to you?

A. That's right.

Q. And then you would clear all such information and problems as you saw fit with Lloyd's of London?

A. That's right.

Q. And that all that was an established practice under which your arrangements with Lloyd's of London were conducted?

A. Right.

Mr. Cluck: Does that answer the question that the Court had in mind?

The Court: Yes, it does. It bears upon the question.

Q. One other question. Did any other air carriers in [241] this region subject to the same regu-

(Testimony of John B. Sweet, Jr.)

lation cause to be transmitted to your office any information or inquiry concerning this CAA regulation?

Mr. Matthews: Objected to as incompetent, irrelevant and immaterial.

Mr. Cluck: We suggest that it is material, your Honor, because this regulation on its face applies not simply to one carrier, namely, Mr. Leland, but it applies to all of them in the region, and the question is designed to a little more particularly indicate the actual practice in connection with this particular matter on the part of both D. K. MacDonald and Culliton & McDonald.

The Court: Read the question.

(Last question read by reporter.)

The Court: The objection is sustained.

Mr. Cluck: I am not sure I have in mind——

The Court: The reason is the other carriers are not shown to be related in any way to this contract of insurance, and there is no custom of such dealing pleaded as affecting the rights of the parties here and what may have been done in respect to some other insurance contract might never have been contemplated by the parties to the insurance contract here in question. That is the basis of the Court's sustaining the objection.

Mr. Cluck: The question is offered, your Honor for [242] the purpose of showing the practice of these parties in connection with the same subject.

The Court: What the practice may have been

with other parties has nothing to do with what dealings were had between the parties on the contracts in suit. The ruling will stand.

Mr. Cluck: That is all.

The Court: Step down.

Mr. Matthews: Your Honor, there are in the file the depositions of some of the Yale students who were passengers on the plane. If that deposition has not been published, the defendants at this time request it be published. We would like to inquire as to the procedure that this Court considers proper in getting the contents of those depositions into the record.

The Court: The depositions of John Kendall, Jr., George M. Cole, Donald F. Lynch, James W. Smith and Charles S. Belknap have been published. If anyone wishes these depositions considered by the fact trier in this case, the one way to get that done is for the attorney offering them to read the questions and make some arrangement for some person to read the answers.

Mr. Matthews: Would it be satisfactory with the Court if Mr. Wilkerson and I read the questions and answers?

The Court: Yes. Whoever shall read the answers may [243] take the witness stand. Do you have copies of the deposition?

Mr. Matthews: Yes, your Honor, we have a copy.

The Court: You may provide yourselves with the necessary copies. The Court will refer to the original on file.

Mr. Wilkerson: We have only one copy.

The Court: The trier of the fact, unless it be a jury, ought to have before him a copy of the paper that is being read. That is especially true with depositions. What deposition do you desire to read first?

Mr. Matthews: We are going to take first the deposition of John W. Kendall, Jr.

The Court: Is there any objection to the validity of the taking of this deposition?

Mr. Cluck: There is not, your Honor.

The Court: You may avoid all formal parts. You may proceed.

DEPOSITION OF JOHN W. KENDALL, JR.
read by counsel for defendants as follows:

“Direct Examination

“By Mr. Thompson:

“Q. Will you please state your name?

“A. John Walker Kendall, Jr.

“Q. Will you please state your temporary address and your permanent address? [244]

“A. 1845 Silliman College, New Haven, and the home address is 3207 Thirty-ninth Avenue, S.W., Seattle 6, Washington.

“Q. You are a student here at Yale?

“A. Yes.

“Q. What class? A. 1952.

“Q. How old are you?

“A. Twenty-one years old.

“Q. Were you a passenger on board a Douglas

(Deposition of John W. Kendall, Jr.)

DC-3 operated by the Seattle Air Charter that crashed following an attempted take-off from Boeing Field, Seattle, Washington, on January 2, 1949, at about 10:05 p.m., Pacific Coast Time?

"A. Yes, I was.

"Q. Previous to this attempted flight did you arrive in Seattle by this same plane from Connecticut? A. Yes, I did.

"Q. On January 2, 1949, at about what time did you arrive at the Boeing Field airport?

"A. At about six o'clock in the evening.

"Q. About what time did you first board the plane at Boeing airport?

"A. At about 8:10 p.m.

"Q. Where was it parked then?

"A. On the east side of the field. [245]

"Q. What happened after that?

"A. We taxied over to the Quonset hut, which was their maintenance shop, or so I suppose, and we got off there.

"Q. At about what time was that?

"A. That was about 8:45 p.m.

"Q. Do you know the reason why you deplaned?

"A. Yes, we deplaned to wait for the fog to lift, or the weather conditions to improve.

"Q. Did you get on board again within the next hour?

"A. Yes, I got on board about 9:40 p.m.

"Q. Previous to boarding the plane at the times you mentioned at Boeing airport, or before your trip west in the plane, did anyone actually weigh you? A. No.

(Deposition of John W. Kendall, Jr.)

“Q. Did any official or employee of the Seattle Air Charter ask you what your weight was before going on board the plane? A. No.

“Q. Of your own knowledge, do you know if any one of the passengers who was on the plane at the time it crashed was weighed by the Seattle Air Charter, the operator of the plane, before the plane was loaded either on the west-bound trip or on January 2, 1949, the date of the crash?

“A. No.

“Q. Did anyone weigh your baggage that you carried before you boarded the plane at either time mentioned above, that is, [246] on your west-bound trip or on January 2, 1949? A. No.

“Q. Mr. Kendall, have you ever been employed by an airline? A. Yes, I have.

“Q. When?

“A. I was employed by Northwest Airlines, Incorporated.

“Q. What time?

“A. The summer of 1947, the summer of 1949, and the summer of 1950.

“Q. In what capacity?

“A. I was an equipment service man who services the airplanes from the standpoint of loading and unloading baggage and cargo and gassing the airplanes and cleaning the airplanes, interior and exterior.

“Q. In the course of your duties that you performed, did you do a considerable amount of unloading of baggage and cargo?

(Deposition of John W. Kendall, Jr.)

“A. Yes, I did.

“Q. In the handling of the baggage did you become accustomed to weighing baggage and forming opinions as to the weight of baggage?

“A. I saw on the baggage tickets of individual pieces and thereby was able to learn the approximate weight of a piece of a bag, yes.

“Q. From your experience as an employee of an airline had you become accustomed to seeing baggage that is handled by [247] passengers?

“A. Would you restate that, please?

“Mr. Thompson: Will you please read it?

“(The last question was read.)

“A. (Continued): Yes.

“Q. Did you become able to judge the probable weight of bags from the sight of them?

“A. Yes, I became accustomed to judging about what amount a passenger would carry from the sight of his bags.

“Q. For example, from the size and general appearance of baggage could you form an opinion as to its probable weight without actually weighing it? A. Approximately, yes.

“Q. Are you acquainted with the weight of baggage allowance permitted each passenger?

“A. Yes, I am.

“Q. What is that weight?

“A. Forty pounds in domestic flight for scheduled airlines.

“Q. Do you know whether or not the Seattle

(Deposition of John W. Kendall, Jr.)

Air Charter provided a weight and balance form on the proposed flight on January 2, 1949?

“A. No, I do not.

“Q. Were you in a position to observe the baggage that was being carried around by passengers for the proposed flight on January 2, 1949? [248]

“A. Yes.

“Q. What did you observe in connection with the passengers' baggage, as to the weight of it?

“A. I got the definite impression that the baggage carried was excessive.

“Q. What did you observe as to the passengers' baggage as their probable weight when considered in the light of the experience you had in the airline service of handling and dealing with baggage?”

Mr. Cluck: We object to that question for the purpose of the record. The witness is trying to estimate the weight of something inside the bag on the basis of having seen other bags.

The Court: The objection is overruled. I think the objection goes to the weight of it. I have known people who could look at a hog and tell how much it weighed, pretty nearly, but I do not know so much about bags, depending on different contents. Most hogs have similar contents, but I do not know about the bags. Of course, it goes to the weight, I believe, and therefore the objection is overruled.

“A. Read that question, please?

“(The last question was read.) [249]

“A. (Continued): I would say that almost

(Deposition of John W. Kendall, Jr.)

twice as much was carried per passenger as compared to what I was used to seeing in the scheduled airline where I worked.

“Q. Would you say that a majority of the baggage of the passengers on the proposed flight of January 2, 1949, exceeded fifty pounds in weight?

“A. Yes.

“Q. Could you judge from the size and general contour of the baggage that some passengers had baggage on that proposed flight of January 2, 1949, that was probably one hundred pounds in weight—some passengers, that is?

“A. No, I don't recall of any passengers carrying that amount.

“Q. Did you see the baggage of a student by the name of James W. Smith?

“A. No, I don't recall seeing his baggage.

“Q. Did you form any opinion as to the baggage allowance or limitations of the passengers on the flight of January 2, 1949, that crashed?

“A. Yes.

“Q. What is that opinion?

“A. The opinion is that the baggage carried by the passengers was of more volume and of more weight than I had seen at the airline where I worked.

“Q. For a similar amount of passengers? [250]

“A. For a similar amount of passengers, yes.

“Q. Now, Mr. Kendall, before you boarded the plane a second time on the night of January 2, 1949,

(Deposition of John W. Kendall, Jr.)

were you in a position to observe the outside of the plane? A. Yes, I was.

“Q. Will you please tell us what you observed before going aboard the second time?

“A. I noticed that there was ice on the top surface of the wing and that that ice was approximately one-sixteenth of an inch thick, covering the surface of the wing like a sheet of glass. I noticed that the stabilizer and elevator were also covered with approximately the same amount of ice, and I moved the elevator up and down and noticed that there was a crackling of the ice. I don't mean to give the impression that the stabilizer and elevator were frozen solid together, but that there definitely was an ice coating over both of them. Also I noticed that there were bumps of ice on the under surface of the wings and ice formed between the aileron and the wing but not so that it extensively impaired the movement of the aileron, although I didn't test the mobility of the aileron.

“Q. Was there any ice near the leading edge?

“A. Of the wing?

“Q. Of the wing.

“A. I didn't notice whether there was ice there or not. [251]

“Q. Now, Mr. Kendall, as far as you know was any effort made to remove the ice from the wings or fuselage or any part of the plane after you boarded it a second time? A. No.

“Q. Did the pilot try to take off in the condition you described? A. Yes.

(Deposition of John W. Kendall, Jr.)

“Q. About how long a time elapsed between the time you boarded the plane a second time until the attempted take-off?

“A. About twenty-five minutes.

“Q. During that time, from your knowledge and experience gained in dealing with airplanes and the condition of weather that existed on that night, could the plane have accumulated more ice while taxiing into position, revving the engines, and in its wait previous to take-off? A. Yes.

“Q. How was the visibility on the night of the attempted take off?

“A. It was variable. It was rather poor.

“Q. Did you notice anything unusual about the sound of the motors as they were being warmed up prior to the attempted take-off?

“A. No, I did not.

“Q. Did they sound as if they were functioning normally? [252] A. Yes, they did.

“Q. Did you notice any unusual sound of the motors during the take-off?

“A. No, I did not up to the time the power was apparently cut.

“Q. Would you say that the passengers on the east-bound trip were carrying more baggage than they had on the west-bound trip?

“A. Yes, I believe quite a few of them had more, probably due to Christmas presents they were carrying back to school.

“Q. Were you near the plane when it was examined by Emmett Flood? A. No.

(Deposition of John W. Kendall, Jr.)

“Q. Were you there when Mr. John Vineyard examined the plane?

“A. I don’t know the man.

“Mr. Thompson: I think that is all.

“/s/ I have read my statement and it is correct.

“JOHN W. KENDALL, JR.”

Mr. Matthews: I would now like to read the deposition of George M. Cole.

The Court: Do you wish to offer this Kendall deposition as a part of defendants’ case in chief?

Mr. Matthews: Yes, Your Honor. [253]

The Court: It is so received.

DEPOSITION OF GEORGE M. COLE

“Direct Examination

“By Mr. Thompson:

“Q. Will you please state your name?

“A. George Marion Cole.

“Q. Let us have your temporary address and permanent address?

“A. Temporary address 601 Berkely College, Yale University, and permanent address 6516 Seventeenth Avenue, N.W., Seattle, Washington.

“Q. In what class are you here at Yale?

“A. I am a senior, class of 1951.

“Q. How old are you?

“A. Twenty-three years old.

“Q. Were you a passenger on board the Douglas

(Deposition of George M. Cole.)

DC-3 that crashed at Boeing Field at about 10:05 p.m., Pacific Time, on January 2, 1949?

"A. I was.

"Q. Had you come on that same plane from Connecticut on the west-bound trip?

"A. I did.

"Q. At about what time did you arrive at Boeing Field on January 2, 1949?

"A. Approximately at six o'clock.

"Q. Tell us what happened in the matter of planing and deplaning at the airport. [254]

"A. It was around 8:10 before we boarded the plane the first time. The plane then taxied to one end of the field, where we waited a few more minutes, and we finally deplaned there at about 8:45, went into the maintenance shack, and were in there for sometime, and finally got back on the plane at approximately 9:40.

"Q. Previous to going on the plane the second time on January 2, 1949, and previous to boarding it on the western trip, did anyone weigh you?

"A. No, sir, they did not.

"Q. Did any official or employee of the Seattle Air Charter ask you what your weight was before you boarded the plane on either of the above occasions? A. No, sir, they did not.

"Q. Do you know whether any one of the passengers on either voyage was weighed by anyone before they boarded the plane?

"A. No, sir, I don't think so.

(Deposition of George M. Cole.)

“Q. Did anyone weigh your baggage that you carried before you boarded the plane at either time?

“A. No, sir.

“Q. Did you have anything to do with the baggage that was loaded on the plane on January 2, 1949? A. Yes, sir, I did.

“Q. What was it? What did you do? [255]

“A. I was on the ground lifting the bags up to the door to Jack Roderick.

“Q. Was anyone else with you at the time?

“A. I believe there was one other man helping, yes.

“Q. Could it have been Mr. James Smith?

“A. Yes.

“Q. Now, Mr. Cole, in the lifting of the baggage and in the process of loading the plane, were you able to judge the approximate weight of the bags and baggage as it was being loaded?

“A. I can only say in regard to that question, sir, the amount of baggage that I loaded seemed to be excessive of the forty pounds we were supposed to have per person.

“Q. From your recollection of the loading would you say that there were many pieces of baggage that weighed well over fifty pounds?

“A. I would say there were a number of bags that weighed fifty or over.

“Q. Now, Mr. Cole, before you boarded the plane a second time on the night of January 2, 1949, did you observe the outside of the plane?

“A. Yes, sir.

(Deposition of George M. Cole.)

“Q. Will you tell us what you observed before you went aboard and the plane attempted to take off?

“A. I walked over to the trailing edge of the wing prior [256] to getting on a second time and ran my hand over the top trailing edge of the wing, and the ice I would judge by feeling and looking at it was around one-sixteenth of an inch thick.

“Q. Did you observe the underside of the wing and other parts of the plane? A. No, sir.

“Q. Do you feel reasonably sure that the plane took off in a condition with the ice on the parts of the plane as you have stated? A. Yes.

“Q. Were you present when they used the solution on the plane in an effort to remove the ice?

“A. Yes, sir, we watched them apply the alcohol compound from inside the plane for a few minutes.

“Q. Did this condition that you previously described exist after they had applied the alcohol solution? A. Yes, sir.

“Q. Were you present when they played a hose on the plane, trying to remove the ice?

“A. I can't remember that, sir.

“Q. Were you present at the time when the pilot, Emmett Flood, examined the plane and refused to fly it? A. No, sir.

“Q. Were you present when John Vineyard examined the plane? [257] A. No, sir.

“Q. Did you see any ice on the windows of the plane?

(Deposition of John W. Kendall, Jr.)

“A. There was ice on some windows, sir, as I remember.

“Q. How was the visibility that night?

“A. It was variable. The fog rolled in in banks and then rolled away in banks.

“Q. What was the condition of the surface of the airport?

“A. The landing field itself was covered with ice, as I remember—quite icy.

“Mr. Thompson: I think that is all.

“/s/ I have read my statement and it is correct.

“GEORGE MARION COLE.”

Mr. Matthews: I would like to offer that deposition in evidence.

The Court: It is received in evidence as a part of the defendants' case in chief. At this time we will take about a ten minute recess.

(Recess.)

The Court: You may proceed in the case on trial.

Mr. Matthews: At this time the defendants would like to read into evidence the testimony of Donald F. Lynch.

DEPOSITION OF DONALD F. LYNCH

“Direct Examination

“By Mr. Thompson:

“Q. Please state your name? [258]

“A. Donald Francis Lynch.

“Q. Please tell us your temporary address as well as your permanent address.

“A. My temporary address is 930 Saybrook College, New Haven, Connecticut, and my permanent address is 2916 Beacon Avenue, Seattle 44.

“Q. Are you a student here at Yale?

“A. Yes.

“Q. What class? A. 1952.

“Q. How old are you? A. Nineteen, sir.

“Q. Were you a passenger on board the Douglas DC-3 that crashed at Boeing Field on January 2, 1949, at about 10:05 p.m., Pacific Coast Time?

“A. Yes, sir, I was.

“Q. Had you taken this same plane on the western flight to Seattle? A. Yes, sir.

“Q. About what time did you arrive at Boeing Field on January 2, 1949?

“A. We arrived there about 7:30 in the evening.

“Q. At about what time did you first go aboard the plane? A. At about 8:10.

“Q. What happened after that? [259]

“A. We taxied across the field to a Quonset hut. There we disembarked and waited in the Quonset hut.

“Q. Did you again go aboard the plane?

(Deposition of Donald F. Lynch.)

“A. Yes, sir, I went aboard the plane again at about 9:40.

“Q. Did you see the baggage being loaded?

“A. I saw part of it being loaded.

“Q. Previous to boarding the plane at the times you have mentioned at Boeing airport and before your trip west in the plane, did anyone weigh you?

“A. No, sir, I was not weighed.

“Q. Did any official or employee of the Seattle Air Charter, or anyone else, ask you before you boarded the plane on either the western flight or the attempted flight on January 2, 1949, what your weight was?

“A. I was not asked on either flight before I entered the plane.

“Q. Do you know if any one of the passengers on either the western flight or the contemplated flight of January 2, 1949, was weighed or asked their weight before they boarded the plane?

“A. I have heard of no one who was asked his weight before boarding the plane.

“Q. Did anyone weigh your baggage that you carried before you boarded the plane on either time?

“A. No, sir. [260]

“Q. Mr. Lynch, did you observe carts on which the baggage was piled?

“A. Yes, sir, I did. I loaded my bag on one of the carts.

“Q. Did you see passengers carrying around their baggage previous to the baggage being placed on the carts?

(Deposition of Donald F. Lynch.)

“A. Yes, sir, I saw some boys carrying baggage.

“Q. In some instances did you notice the size of the baggage or suitcases they were carrying?

“A. I noticed that James Smith had two large bags, and I believe that Roger Young had a large bag.

“Q. From your general experience in carrying suitcases and judging weights, can you tell us what the approximate weights of the baggage of those two persons you mentioned probably were?

“A. I would estimate both of them at eighty pounds or more.

“Q. Will you please inform us what was the result of the observations you made in connection with the baggage that was loaded on that plane on the night of January 2, 1949?

“A. It is my opinion, sir, that most every student on that plane carried more than the required forty pounds of baggage.

“Q. Now, Mr. Lynch, before you boarded the plane a second time on January 2, 1949, did you observe the outside of the plane?

“A. Yes, sir, I did.

“Q. Will you tell us what you saw? [261]

“A. I noticed that there was ice on the fuselage, that there was bumps of ice on the underside of the left front wing, and that there was a sheet of ice on the top of the left front wing, and that the de-icers were covered with a thin sheet of ice.

“Q. Did you make any observations in connection with the windows of the plane?

(Deposition of Donald F. Lynch.)

“A. It was impossible to see out of the windows.

“Q. Why?

“A. They were iced up on the outside and of course fogged up on the inside.

“Q. Did you know of or watch or have knowledge in any way of the attempt to remove ice from the wings?

“A. Alcohol was swabbed on the wings, and I believe also on the tail surfaces, with a mop.

“Q. Now, Mr. Lynch, was the condition you described the plane was in a moment ago when you boarded it for the second time the condition that existed after they had swabbed the wings, and so forth, with alcohol?

“A. Yes, sir, that was the condition that I saw after the wings were swabbed.

“Q. And was that the condition in which the attempted take-off was made?

“A. Yes, sir, it was.

“Q. How was the visibility on the night of the attempted [262] take-off?

“A. Visibility varied. Boeing Field is in a hollow and the fog comes and goes with the winds. At the moment we loaded the plane for a second time the visibility was excellent and I could see the top of Beacon Hill. As we taxied off for the take-off a fog seemed to cover the field more and more and the visibility did not seem to me to be good at the time of take-off.

“Q. Were you present at the time they played a hose on the plane, trying to remove the ice?

(Deposition of Donald F. Lynch.)

“A. No, sir, I was not.

“Q. Were you present at the time when Emmett Flood examined the plane and refused to fly it?

“A. No, sir, I was not.

“Q. Do you know whether or not there is in existence a weight and balance form?

“A. I have heard that a balance form was made out in the office of the Air Charter Service, but I didn't see it.

“Q. Have you a sister by the name of Audry Lynch? A. Yes, sir, I have.

“Q. Where does she live in Seattle?

“A. Her permanent address is 2916 Beacon Avenue, Seattle 44.

“Q. Where is she at the present time?

“A. In Washington State College, Pullman, Washington.

“Q. What seat did you occupy on the night of January 2, [263] 1949, at the time of the crash?

“A. I occupied the last seat in the second column of seats on the right side of the airplane, facing towards the nose.

“Q. Was the plane fully loaded at that time?

“A. Do you mean at the take-off?

“Q. Yes, at the time of the take-off.

“A. Had they put all the baggage in?

“Q. I am more after the passengers.

“A. Oh, there was one passenger who wasn't there. Altogether I think there were twenty-seven of us. There should have been twenty-eight.

(Deposition of Donald F. Lynch.)

“Q. In the compartment of the plane, aside from the cargo space did the passengers have other packages and baggage?

“A. Yes, sir. Practically everyone carried small packages.

“Q. Did you notice anything unusual about the sound of the motors as they were being warmed up prior to the attempted take-off?

“A. No, sir, I did not.

“Mr. Thompson: I think that is all.

“/s/ I have read the statement, and it is correct.

“DONALD F. LYNCH.”

Mr. Matthews: I offer that deposition in evidence.

The Court: It is received as a part of defendants' case in chief. [264]

Mr. Matthews: At this time we would like to read the deposition of James Wendell Smith.

DEPOSITION OF JAMES WENDELL SMITH

“Direct Examination

“By Mr. Thompson:

“Q. Will you state your full name?

“A. James Wendell Smith.

“Q. Will you please let us have your temporary address and also your permanent address?

“A. My college address at the present time is 1287 Yale Station, New Haven, Connecticut. My

(Deposition of James Wendell Smith.)

permanent address is 1213 Spur Street, Aberdeen, Washington.

“Q. You are a student at Yale, and in what class?

“A. I am a full-time student at Yale University and a junior-elect.

“Q. How old are you?

“A. My age is twenty.

“Q. Were you a passenger on board the Douglas DC-3 on the night of January 2, 1949, when it attempted a take-off at Boeing Field?

“A. I was.

“Q. Previous to this attempted flight did you arrive in Seattle by the same plane from Connecticut? A. Yes.

“Q. At about what time did you arrive at Boeing Field on the night of January 2, 1949? [265]

“A. Five-thirty.

“Q. While you were out there did you see other passengers and their baggage previous to going aboard the plane? A. I did.

“Q. How many times did you board that plane that night? A. Twice.

“Q. Do you remember approximately the time you boarded the plane for the second time?

“A. I believe it was somewhere around 10:10. I am not sure.

“Q. Would it help your recollection in this matter if I told you that the crash took place about 10:05? A. Yes, it would.

(Deposition of James Wendell Smith.)

“Q. About what time then, do you think you went aboard the plane? A. Nine-forty.

“Q. Now, previous to boarding the plane at the times you have mentioned, that is, both at Boeing Field as well as on your trip west in the plane, did anyone weigh you?

“A. Baggage or the person?

“Q. Person. A. Nobody weighed anybody.

“Q. In other words, no one on the plane was weighed at any time?

“A. No. Well, I mean——

“Q. As far as you know. [266]

“A. I don't want to confuse you with my “No.” I mean there was nobody weighed.

“Q. Did any employee or official of the Seattle Air Charter ask you what your weight was before you went aboard either on your western trip or on the night of the attempted flight before?

“A. No.

“Q. Did anyone weigh your baggage that you carried before you boarded the plane at either time, that is, on the night of January 2, 1949, or on your flight westward? A. No.

“Q. Did you see the baggage of anyone being weighed? A. No, I did not.

“Q. Were you in a position to see the baggage that was being loaded on the plane on the night of January 2, 1949? A. I certainly was.

“Q. How did you come to be in a position to see the baggage?

(Deposition of James Wendell Smith.)

“A. Because I was one of the persons who helped load the baggage on the plane.

“Q. You actually handled the baggage?

“A. I actually handled the baggage.

“Q. From your actual handling of the baggage are you in a position to tell us the probable weight of baggage that was carried by the majority of the students in terms of whether or not the baggage weighed over forty pounds? [267]

“A. The baggage weighed well over forty pounds. I should say the average weight of each person's baggage was sixty pounds. My own baggage weighed up to a hundred pounds. Some had less, but the average was sixty to sixty-five pounds. May I tell you where they put it in the plane?

“Q. Yes.

“A. They filled up completely a baggage compartment and then they had to throw the bags in the back part of the plane until that was completely filled up, and then they went up in the pilot's compartment and put more baggage there.

“Q. Besides all this baggage did the students have additional baggage or cargo as they sat in the plane?

“A. Yes, such things as briefcases and small boxes were accompanied by the students.

“Q. Mr. Smith, you have had some flying experience, have you not? A. Yes, I have.

“Q. State generally what it has been.

“A. I have never actually flown a plane yet. I

(Deposition of James Wendell Smith.)

went on one transcontinental trip both ways by air on a DC-4.

“Q. Now, Mr. Smith, before you boarded the plane a second time on the night of January 2, 1949, were you in a position to observe the outside of the plane? A. I was.

“Q. Will you tell us, please, what you observed before [268] going aboard?

“A. The plane was covered with a thin sheet of ice. On the aileron there were pieces of ice hanging. Below the wings there were also pieces of ice hanging. The windows were completely encrusted with a sheet of ice, so that when a person got in the plane they couldn't see out.

“Q. Did you notice whether there were patches of ice on the wings?

“A. I don't know what you mean by patches.

“Q. Blotches of ice.

“A. No, sir, I don't remember any particular patches, though I do remember this thin sheet of ice and also the ice hanging down from the aileron.

“Q. Was some of the ice behind the leading edge, that is, the front edge? A. Yes.

“Q. Did you have a chap near you at the time you were looking at the plane and observing its condition? A. I did.

“Q. What was his name?

“A. Mr. Charles Belknap.

“Q. Did you observe him do anything in particular?

(Deposition of James Wendell Smith.)

“A. Well, he chipped off a piece of the ice that was hanging down from the wing.

“Q. Mr. Smith, as far as you know, was any effort made to [269] remove any of the ice or the icy condition from the wings or any part of the plane?

“A. Yes, there was. There were some meager attempts.

“Q. When was this done in respect to the time when you boarded for the second time?

“A. Before we boarded the plane.

“Q. So was the condition that you state as existing at the time you went aboard for the second time the condition in which the plane attempted to take off? A. It was.

“Q. Mr. Smith, did you notice the condition of the land on which the plane would run, known as the runway? A. Yes, I did.

“Q. Will you tell us what you observed?

“A. It was covered with a very thin layer of ice so that it made walking difficult.

“Q. Will you please advise us whether you made any observations as to visibility on the night of the attempted take-off? A. Very much so.

“Q. Will you tell us what you observed?

“A. It was an extremely cold evening. Undoubtedly it was clear, but above this fog that was continually swirling in and out of the field. There was hesitation to take off because of this fog, but they saw it lift for a minute just before we boarded for a second time and thus they thought they [270]

(Deposition of James Wendell Smith.)

had the opportunity to take off. But once we got on the plane the fog started moving in again. Consequently there was some delay at the end of the runway, waiting for another break.

“Q. On the trip westward can you tell us as to the number of times they put in gas and the stops they made and any observations you made in connection with the load?”

“A. There was so much baggage and so much weight on the plane that they couldn’t put in the amount of gasoline that the plane could ordinarily carry. Consequently they first stopped at Cleveland, then Chicago, Minneapolis, Fargo, Billings, Spokane, and landing at Spokane was an emergency landing.

“Q. Would you say the load that they had on the night of the attempted take-off was greater than the load that they had on the west-bound flight? A. Curiously, it was.

“Mr. Thompson: I think that is all.

“/s/ I have read this statement and it is correct.

“JAMES W. SMITH.”

Mr. Matthews: I offer that deposition in evidence.

The Court: It is received in evidence as a part of the defendants’ case in chief.

Mr. Matthews: I would now like to read the deposition of Charles Sabin Belknap. [271]

DEPOSITION OF
CHARLES SABIN BELKNAP

“Direct Examination

“By Mr. Thompson:

“Q. Will you state your name for the record, please? A. Charles Sabin Belknap.

“Q. Where are you residing at Yale College at the present time? A. 419 Calhoun.

“Q. Where is your home?

“A. Portland, Oregon.

“Q. What is the address there?

“A. 2501 S. W. Ravensview Drive.

“Q. What class are you in at Yale?

“A. 1952.

“Q. What is your age? A. Nineteen.

“Q. Were you a passenger on board a DC-3 airplane operated by the Seattle Air Charter that made an attempt to take off from Boeing Field on January 2, 1949, and that crashed at about 10:10 p.m., Pacific Coast Time? A. Yes.

“Q. Previous to the attempted flight, at what time did you arrive at the Boeing air field?

“A. I believe it was——

“Q. Roughly.

“A. Roughly, I would say 8; maybe an hour either way.

“Q. Previous to this attempted flight did you arrive in [272] this plane at Seattle from Connecticut? A. Yes, I believe it was the same.

“Q. How many times did you board the plane on the night of January 2, 1949? A. Twice.

(Deposition of Charles Sabin Belknap.)

“Q. The second time you boarded the plane where was it parked?

“A. It was away from where we had begun, about several hundred yards, I guess—some shack.

“Q. Previous to boarding the plane on the night of January 2, 1949, did anyone weigh you?

“A. My baggage?

“Q. No, you personally. A. No.

“Q. Did anyone weigh your baggage?

“A. No.

“Q. Do you know a student by the name of James W. Smith? A. Yes.

“Q. From your observation of the baggage he carried could you tell us about how much it weighed approximately? A. I am not qualified to say.

“Q. Would you say that it exceeded sixty pounds? A. I didn't notice his baggage.

“Q. Before you entered the plane the second time did you make any observations of the outside condition of the plane?

“A. I ran my hand along the aileron of the left wing and [273] there was some ice, sort of like formation of icicles beginning, and I chipped a little off.

“Q. You chipped a little off?

“A. Yes. It wasn't a uniform layer necessarily, but there was a patch—intermittently there were chunks of ice and stuff.

“Q. Were there chunks or patches of ice on the wings? A. Yes.

“Q. Did some of this ice also remain on the

(Deposition of Charles Sabin Belknap.)

plane immediately behind the leading edge, that is, the front edge? A. Yes.

“Q. Do you remember the condition of the windows on the plane?

“A. I can't say for sure. I wasn't sitting by a window; I was sitting on the aisle.

“Q. As far as you know, did the plane take off in the condition you have described? A. Yes.

“Q. Did you notice anything unusual about the sound of the motors as they were being warmed up or during the time of take-off?

“A. No. I know they were constantly revved up; that is all I know.

“Q. Were you present at the time that Emmett Flood, the pilot, examined the plane?

“A. No. [274]

“Q. Did I understand you to say, Mr. Belknap, that you actually broke a piece of ice off the plane?

“A. Yes.

“Q. Have you any opinion as to the question of overload of either passengers or baggage on the night of January 2, 1949? A. I guess no.

“Mr. Thompson: I think that will be all.

“/s/ I have read my statement and it is correct.

“CHARLES SABIN
BELKNAP.”

Mr. Matthews: Defendants would like to offer that deposition in evidence.

The Court: It is admitted as part of defendants' case in chief.

Mr. Matthews: I understand we may omit reading the certificate.

The Court: Yes, unless there is objection to the legality of taking of the deposition. I hear no objection.

Mr. Wilkerson: At this time, your Honor, I would like to offer in evidence Defendant's Exhibit A-2, which was marked and which consists of the telegram concerning the weight of Robert R. Adams and the records of Yale University concerning the weights of the other Yale students. We have now the black on white photostats of the records. We offer them pursuant to the stipulation [275] made.

Mr. Cluck: We make objection to their admission, except as to Mr. Adams. I think we agreed that wire could be admitted stating his weight.

The Court: The Court wishes the record to show that the defendants now offer another photostatic copy in proper form of certain documents previously in the trial marked as Defendant's Exhibit A-2 and later withdrawn, and defendant now wishes those photostatic copies marked Defendant's Exhibit A-2 and now offers them in evidence. Is there any objection?

Mr. Cluck: Yes, your Honor, there is objection. The stipulation to which counsel referred is confined solely to the matter of certification, reading as follows: "Copies of any records of Yale University or any of its departments, certified to be true copies of such records by any person who certifies that he has custody or possession thereof, shall be admissible in evidence in this cause to the same extent

as, but no greater extent than, the original records would be if the official custodian thereof produced them in open court and testified to their genuineness."

We have been careful on all of our dealings to make it clear that we were going to call for proper showing of proof on all relevant matters except those [276] clearly set forth in the stipulation, and on this particular matter it is our contention that these form sheets are not admissible.

The certificate attached to the set of sheets states as follows: "To Whom It May Concern: This is to certify that I, Orville F. Rogers, M.D., am Director of the Department of University Health, Yale University, and custodian of the records of the said Department.

"The accompanying photostats are true copies of the records of the Department of University Health.

"The originals of these records are on file in my custody at Yale University.

"/s/ ORVILLE F. ROGERS, M.D.,
"Director."

It is our position that there must be a showing to come within even the most liberal provisions of the Federal statute, that those are business records and that he regularly keeps them and that the other requirements of the statute are satisfied. Moreover, the records themselves, which, by the way, consist of a series of weights, do not set forth the ticket weight or the manner in which it was taken or whether any weight was taken at all. What it does

set forth is the date of examination, whenever that was. Further than that, the dates of examination, in the majority, or almost a majority of the cases, are either a substantial time [277] before or a substantial time after the date of the accident. I made a short tabulation of them here, and the period varies from some months to as much as two years and over, so that the matter of the bearing of the entry upon the weights of the students in this airplane as of January 2, 1949, is open to grave doubt.

The Court: I should think if there were weights that were taken at the beginning of the school term or at some time that is related to the business of the students in connection with which these flights were taken, that that last objection would be met. Is there any showing or any admitted fact relating to that?

Mr. Cluck: There isn't even a showing, your Honor, with any scaling at all. The only entry that would be offered to imply that is the entry date of examination, weight, which may have either been gained from the statement of the student or from the scaling. We do not know.

The Court: Of course, a business record that is used for the purpose of business, no matter whether the manner in which the record information was obtained is accurate or not, would be the test on that point of the shop book rule, I would think. If the business relied upon the information in order to serve a part of the business purposes, then the question of how information or [278] how accurately the information may have been assembled would not

be a question which would be so vital. The main concern I have about this offer is whether or not it has been proved to be business information of Yale University, and whether it was utilized by the University at a period of time that is material to the time involved in the litigation. I will hear Mr. Wilkerson further on that.

Mr. Wilkerson: The exhibits, of course, themselves show the date of the examination and the name and age of the student. They also show that they contain confidential information not relevant to the question of age and weight, and show that the record is on a form of Yale University Department of Health, and also contain something at the bottom, some information concerning apparently the dental records which are not contained in the record offered.

Of course, the stipulation states that the records are genuine. It seems to me that that meets—the matters that counsel has raised go to the weight of the evidence rather than to the admissibility. The custodian has certified that they are copies of records of the Department of Health, Yale University, and part of the official records of Yale University concerning these students, that they are in his possession. [279]

Mr. Cluck: Would you indicate to the Court, counsel, the dates on some of those examinations? I think the Court inquired about that.

Mr. Wilkerson: The Court has them before him.

The Court: One examination is dated August 13, 1945, or 1946, I cannot tell for sure. It is relating

to Nilsen. For Smith, the date is November 29, I believe it is 1949. The rubber stamp that was used is blurred or blotted out. There is another one relating to Schaak, which I cannot make out as to the year.

There is one as to Thompson, dated March 9, 1950. There is one as to Roderick, September 2, 1946, I believe. William Hood Howe, as of February 20, 1950. There is another one here with a name I cannot make out very plainly, it may be Kinall, and the date is February, 1950. Then there is Anderson, October 4, 1950, and some other person's name, October 11, 194...—I cannot make out the figure which is most important.

Garrett, April 2, 1948, according to my ability to see. Another one relates to Bjork as of September 30, 1948; another as to Liddle, October 14, 1948; another one as to another person, November 16, 1948. Another as to G. M. Cole, September 18, 1947. I should think the time in so many of the instances is so remote from this, and being weights of young persons of school age, it [280] would be very unreliable.

Mr. Wilkerson: If your Honor please, they were young persons of school age and presumably would be growing, some of them, at the ages shown, which of course would indicate that. It seems to me that that matter goes, of course, to the weight that your Honor would give. It seems to me the period is close enough that it should be admissible, especially in view of the fact that the age is given, would indicate the reliability of it as to date.

The Court: Has anyone any authority that you

want to call to the Court's attention? So far as I know, there is no proof by any witness that there is no other source of information about the weight; so far as the record shows, it may have been possible to call the mother or father of the decedent passengers, and it may have been possible to have called the surviving passengers as witnesses to develop what their weight was at the time in question; no record showing that this is the only possible information upon the subject of weight.

Mr. Wilkerson: From the nature of the crash, of course, that number of students, it would appear, I think, at least difficult to obtain from the facts shown the weight of that many people.

The Court: I think on the record the Court ought to sustain the objection. The objection is sustained to [281] this offer.

Mr. Matthews: I believe your Honor reserved ruling on the admissibility of Defendant's Exhibit A-13, which is the copy of the findings of the CAB, which we offer pursuant to that section of the statute which provides that such findings and reports—that the official publications of such findings and reports shall be admitted as competent evidence in any court in the United States.

Mr. Cluck: If the Court please, there is an exhaustive annotation on this subject, 153 A.L.R. 163. The title of the annotation is: "Admissibility of report of public officer or employee on cause of or responsibility for injury to person or damage to property."

The general rule, as stated in A.L.R., is as follows: "Notwithstanding the general rule that public records and reports are admissible in evidence, the courts almost universally exclude statements contained in such reports or records concerning the cause of or responsibility for an injury to the person or damage to property."

At page 170 of the annotation, there is a subdivision c. entitled "Statutes held not to make report admissible," in which statutes in some respects similar to the one under review are considered. I found that other cases that we had collected are included in that annotation, [282] and the summary is made in such an able fashion that it is the best brief, it seems to me, on the subject that could be offered for these purposes.

Mr. Wilkerson: I am familiar with the annotation in question cited by counsel. There is another Federal statute in addition to the two which the annotation considers, which have already been called to your Honor's attention. It considers 28 U.S.C.A. Sec. 1733, which reads as follows: "(a) Books or records of account or minutes of proceedings of any department or agency of the United States shall be admissible to prove the act, transaction or occurrence as a memorandum of which the same were made or kept.

"(b) Properly authenticated copies or transcripts of any books, records, papers or documents of any department or agency of the United States shall be admitted in evidence equally with the originals thereof."

A report of the findings in a case in the Federal Court in Louisiana is cited in the annotation. The report of findings in a marine case under similar circumstances, was held to be admissible. I think the annotation does cover the subject matter thoroughly, but under clear reading of 49 U.S.C.A. 425, I believe this exhibit is admissible.

The Court: Will you consider the provisions of that [283] section, subparagraph (d) on page 269 of the pocket part and see what if anything you have to say, Mr. Cluck, and see what you think of the provisions as being applicable to the offer of A-13.

Mr. Cluck: The last two sentences of subdivision (d), page 269, are probably what the Court is particularly referring to. The first sentence of the section required that the Board make a report of all proceedings and investigations in which formal hearings were held, stating conclusions and decision and order.

The second sentence is: "All such reports shall be entered of record and a copy thereof shall be furnished to all parties to the proceeding or investigation." It goes on to say: "The Board shall provide for the publication of such reports, and all other reports, orders, decisions, rules, and regulations issued by it under this chapter in such form and manner as may be best adapted for public information and use. Publications purporting to be published by the Board shall be competent evidence of the orders, decisions, rules, regulations, and reports of the Board therein contained in all courts

of the United States, and of the several States, Territories, and possessions thereof, and the District of Columbia, without further proof or authentication thereof.”

We submit that relates solely to the manner of proof [284] or authentication in those instances where the report of the Board might be usable for any purpose, and that this provision must be construed with Section 581, in express terms providing that no part of any such matter relating to any accident, or the investigation thereof, shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports.

In other words, the two sections are not inconsistent in any respect, as seems to have been implied in some remark made by counsel yesterday. One just relates to the general manner of proof and authentication, 425, and the second contains the express prohibition against its use in any action for damages growing out of any matter mentioned in the report or reports.

The Court: Does anyone else connected with the trial wish to make any comment upon this matter? Mr. Wilkerson, do opposing counsel's last remarks cause you to feel the need of any further statement from you?

Mr. Wilkerson: I think the statements are so contrary to the plain wording of the statute, I do not see how you can arrive at the conclusion that counsel reaches from that section. It says: “Pub-

lications purporting to be published by the Board shall be competent evidence of the orders, decisions, rules, regulations, and reports [285] of the Board therein contained in all courts of the United States, and of the several States, Territories, and possessions thereof, and the District of Columbia, without further proof or authentication thereof."

It seems to me that the section clearly authorizes the admission in evidence.

Mr. Cluck: The only reply I would respectfully offer is this, your Honor, that implied in that statute which counsel read is the point that no proof or authentication is required in any court of the United States, any court mentioned, as to any action or as to any purpose for which the report is otherwise admissible but that must be then construed to be said in connection with Section 581, which states expressly where they are not admissible. It seems to me we fall back on the rather well-established rule of statutory construction that courts will make an effort to harmonize sections of applicable statutes in such way as to give effect to them all; and this is just one of those instances where in one section the intention of the framers was devoted to the matter of proof and authentication and the other was dealing with the other matter of stating expressly in what actions the report shall not be admissible at all, however proved or authenticated.

The Court: This question has not given me as much [286] trouble as my present inquiries and indulgence of your expression of your views may seem

to you to indicate. It seems clear to me that the provisions of Sec. 425, Title 49, and particularly subparagraph (d), relate to the method of promulgation and authentication. The effect of such provisions is, in my opinion, to say what is necessary for the Board to do in order to effectuate the making or promulgation of the reports, orders, decisions, rules and regulations issued by the Board, and to officialize a certain type of authentication thereof, and the effect of such section, and in particular subsection (d), and the effect of such provisions is that if the Board does publish any such report, order, decision, rule or regulation in the manner therein described, that thereafter such things published in the manner therein provided shall be deemed as officially authenticated without further proof, without looking further than to that publication which is here provided.

It seems to me to not conflict at all with the specific provision of Section 581, which says expressly that “. . . no part of any report or reports of the former Air Safety Board or the Civil Aeronautics Board relating to any accident, or the investigation thereof, shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned [287] in such report or reports.”

The last statutory provision read by the Court from Sec. 581 expressly forbids the admission in evidence of Defendant's Exhibit A-13, in the Court's opinion, and the Court does sustain the objection to

the offer and that exhibit is excluded from the evidence.

Is there any other exhibit to which defendants' counsel wish to call attention? I believe there was Defendant's Exhibit A-14, which was the flight plan which concerned the entry of "0600."

Mr. Wilkerson: We would like to offer that at this time, your Honor.

Mr. Cluck: No objection, your Honor.

The Court: That is now admitted.

(Defendant's Exhibit A-14 received in evidence.)

RECEIVED

AIRC-57

TWR RH RB

JAN 3 03 00 49

US ARMY COMM STN SEATTLE, WASH.

FLIGHT PLAN

Received RB Jan 3 02 57²49

US ARMY COMM STN SEATTLE, WASH.

AIRCRAFT IDENTIFICATION NO. **Z**

COLOR OF AIRCRAFT

TYPE OF AIRCRAFT (If formation flight, types and number of aircraft)

79025

Silver

DC-3

NAME OF PILOT OR FLIGHT COMMANDER

PILOT'S OR FLIGHT COMMANDER'S ADDRESS

CERTIFICATE NO. OF PILOT OR
FLIGHT COMMANDER

Chavers

Des Moines 444Z

12473

POINT OF DEPARTURE

CRUISING ALTITUDE(S) AND ROUTE TO BE FOLLOWED

SEA

9000 Ga to Elm 11, CO RAB to LWA 9000 Ga BIL.

POINT OF FIRST INTENDED LANDING (AIRPORT OR INTERMEDIATE STOPS AND DESTINATION (VFR)
ESTIMATED ELAPSED TIME UNTIL ARRIVAL
OVER POINT OF FIRST INTENDED LANDING
OR FINAL DESTINATIONPROPOSED TRUE AIR
SPEED AT CRUISING ALT.PROPOSED TIME OF
DEPARTUREACTUAL TIME OF
DEPARTURE

BIL

165

M. P. H. P 2100P

D

ALTERNATE AIRPORT

FUEL ON BOARD

FREQUENCY OF RADIO EQUIPMENT

4 plus 15

HJN

06:00

RECEIVER

TRANSMITTER

3105.6210

ANY OTHER INFORMATION PERTINENT TO AIR TRAFFIC CONTROL OR SEARCH AND RESCUE

ARRIVED

FILED BY

LOCATION

TIME

Chavers

Mr. Wilkerson: At this time I would like to re-offer Defendant's Exhibit A-4, which was the report on the engines which Mr. Davison stated, as I recall his testimony, was his original notes or a copy of his original notes taken at the time he examined the engines.

The Court: Did he make any statement as to whether or not this went forward into the Board's report on this investigation?

Mr. Wilkerson: It is my recollection he testified he [288] did make a report to the Board.

The Court: And that these were made for the Board's attention in connection with the inspection that he was making for the Board?

Mr. Wilkerson: He testified, however, that it was a part of his original findings, a part of the records of his firm in that connection.

Mr. Cluck: Your Honor, if it will expedite matters, we will withdraw our objection to that exhibit, provided it is distinctly understood that it is submitted solely as the witness' own work and has nothing whatever to do with any Board finding or proceeding.

Mr. Wilkerson: It was my understanding of his testimony that it was his own work.

The Court: Upon that understanding, it is now admitted.

(Defendant's Exhibit A-4 received in evidence.)

DEFENDANTS' EXHIBIT A-4

Right Engine

R1830-90D P & W

Serial Number missing

External Visual Inspection

1. Front case broken completely off just ahead of attaching studs.
2. Front oil pump still in place on engine.
3. Anchor plate (Reduction drive gear bearing support plate) bent back between No. 4 and No. 6 cylinders.
4. Oil line from front case to rocker sump missing.
5. Oil scavenge line from front case to blower case still attached to pump.
6. Harness manifold bent and twisted but still attached to front of crankcase.
7. Ignition leads torn loose from ignition manifold on lower left side of engine.
8. All ignition harness lead attaching nuts burned away from manifold.
9. No. 1 cylinder:
 - Intake and exhaust pipes attached.
 - Cylinder intact.
 - Push rods in place but covers burned near centers.
 - Spark plug leads attached.

Defendants' Exhibit A-4—(Continued)

No. 2 cylinder:

Intake and exhaust pipes attached.

Cylinder intact.

Exhaust push rod housing half burned away.

Intake push rod housing intact.

Spark plug leads attached.

No. 3 cylinder:

Intake and exhaust pipes attached.

Cylinder intact.

Exhaust push rod housing intact.

Intake push rod housing half burned away.

Spark plug leads attached.

No. 4 cylinder:

Intake and exhaust pipes attached.

Exhaust push rod housing $\frac{1}{3}$ burned away.

Intake push rod housing burned away except for approximately 3" from crank-case.

Intake rocker box and cover mashed and partially burned.

Spark plug leads attached.

No. 5 cylinder:

Exhaust pipe missing except for short stack still attached to cylinder.

Intake pipe in place but coupling nut burned away.

Rear spark plug lead hanging by ignition wire.

Defendants' Exhibit A-4—(Continued)

Front spark plug lead in place except aluminum attaching nut burned away.

Exhaust rocker cover partially burned.

Intake rocker box broken off and burned.

Push rods and housing burned away except for $\frac{1}{3}$ of each still attached to crankcase.

No. 6 cylinder:

Exhaust pipe missing except for short stack still attached to cylinder.

Intake pipe in place but coupling nut burned away.

Intake and exhaust rocker boxes broken and burned off. Valves, locks and springs still in place.

Push rods and housings burned away.

Spark plug leads hanging by wires.

No. 7 cylinder:

Exhaust pipe in place.

Intake pipe in place but coupling nut burned away.

Intake and exhaust rocker boxes burned off.

Valve assemblies in place.

Exhaust push rod and housing burned away except for $\frac{1}{3}$ still attached to crankcase.

Intake push rod housing burned except $\frac{3}{4}$ still attached to crankcase.

Push rod missing.

Cylinder head fins badly melted.

Spark plug leads hanging by wires.

Defendants' Exhibit A-4—(Continued)

No. 8 cylinder:

Exhaust pipe in place.

Intake pipe in place but coupling nut burned away.

Exhaust rocker box broken and burned away. Valve assembly intact.

Intake rocker box broken and burned away. Valve assembly intact.

Exhaust and intake push rods and housings missing except for holding nuts still attached to crankcase.

Rocker box drain sump missing.

Cylinder head fins badly burned and melted.

Spark plug leads hanging by wires.

No. 9 cylinder:

Exhaust pipe in place.

Intake pipe in place but mashed.

Cylinder head fins broken and almost completely burned away.

Valve assemblies in place.

Push rods and housings missing.

Spark plug leads hanging by wires.

No. 10 cylinder:

Exhaust pipe evident but not attached.

Intake pipe missing.

Intake half of cylinder head missing along with valve assembly.

Exhaust valve assembly hanging but not in place.

Defendants' Exhibit A-4—(Continued)

Push rods and housings missing.
Front spark plug lead in place.
Rear spark plug lead missing.
Piston near top dead center.

No. 11 cylinder:

Exhaust and intake pipes hanging in place.
Cylinder head approximately 85% broken
and burned away.
Piston approximately bottom of stroke.
Push rods and housings missing.

No. 12 cylinder:

Exhaust and intake pipes hanging in place.
Cylinder head approximately 80% broken
and burned away.
Piston approximately $\frac{3}{4}$ up cylinder wall.
Push rods and housings missing.

No. 13 cylinder:

Exhaust pipe in place.
Intake pipe in place but coupling nut
burned away.
Exhaust and intake rocker boxes burned
off but valve assemblies still intact.
Exhaust push rod and housing burned away
except for $\frac{1}{3}$ attached to crankcase.
Intake push rod and housing burned away
except for $\frac{1}{3}$ still attached to crankcase.
Spark plug leads still hanging by wires.

No. 14 cylinder:

Exhaust pipe in place.

Defendants' Exhibit A-4—(Continued)

Intake pipe in place but coupling nut burned away.

Exhaust and intake rocker boxes broken and burned away but valve assemblies still intact.

Exhaust push rod and housing missing.

Intake push rod housing missing.

Spark plug leads hanging by wires.

10. Rear case completely burned off. No rear case parts found with engine.
11. Intermediate rear case burned off except for upper $\frac{1}{3}$ including broken portion of carburetor mounting pad.
12. Fire seal and engine mounting still in place held by two upper and two right mount brackets. All lord mount rubbers burned away.
13. One piece of CO² line approximately 3' long laying on upper left side of fire seal, rear, held in place by bent engine mount arm to which is attached one fire wall mount fitting.
14. Ignition harness completely missing rear of fire seal except for short pieces of main harness flex, on both sides.

Right Engine

Internal Visual Inspection

After disassembly, all internal engine parts appeared in working order with no evidences of failure.

Defendants' Exhibit A-4—(Continued)

Visual inspection including that of the master rod bearings showed no evidence of overspeeding of the engine.

Ample lubrication inside the engine was evident throughout.

Right Engine Accessories

All engine accessories were missing including the governor, except the carburetor.

Carburetor—Stromberg

Model—PD12F5

Serial number—Plate burned off.

1. Manual mixture control cover burned off.
2. Full rich bypass assembly burned off.
3. Fuel control body cover burned off and internal parts burned.
4. Idle needle cover burned off and internal parts burned.
5. Carburetor was torn from the rear case pulling out the stud bushings.
6. Safety screen still intact on top of carburetor.
7. Accelerating pump melted and burned badly.
8. Automatic mixture control still intact but internal parts burned off.
9. Vapor floats and float chamber burned away.
10. All rubber diaphragms burned away.

Defendants' Exhibit A-4—(Continued)

11. The idle needle was subject to intense heat and consequently seized in the bushing at a position indicative of approximately $\frac{1}{2}$ throttle opening.

This carburetor has been burned beyond deciphering any functioning evidence.

Right Engine Propeller

Right position assumed because of damage evidence.

1. The engine propeller shaft and reduction gear assembly still attached to the propeller.
2. All attaching locks were in their proper places.
3. The majority of the propeller nuts were loose as well as the distributor valve. Possible assumption of the looseness due to the intense heat encountered in the fire.
4. The dome was dented approximately $\frac{1}{4}$ " deep just to one side of the front center. All other dome internal parts appeared lubricated and in working order.
5. No. 1 blade:
Bent back approximately 45° with about $\frac{1}{4}$ of the blade burned off.
No. 2 blade:
Bent back approximately 45° with edges burned.
The driven gear is broken and spread about 1".

Defendants' Exhibit A-4—(Continued)

No. 3 blade:

The tip only is bent forward approximately 30°, the blade remained unburned.

The driven gear appears undamaged.

6. The drive gear is marked and nicked where driven gears broke.

Left Engine

R 1830-90D P & W

Serial No. missing

External Visual Inspection

1. All of the engine to the front section drive coupling is broken off just ahead of the front section mounting studs.
2. Ignition harness bent back toward the rear of the engine at cylinders numbers 4 and 6.
3. Front sump still attached to front lower case with both rocker sump and scavenge oil line intact.
4. Governor control pulley bracket still attached to number 4 cylinder, broken away from the exhaust rocker box but held to the intake rocker box. Micarta pulley is broken off or burned away. Governor control pulley and shaft laying between the engine lifting eye and number 14 cylinder.
5. The engine oil inlet fitting had approximately 6" of hose, 2 hose clamps and approximately

Defendants' Exhibit A-4—(Continued)

8" of aluminum tubing still intact, the rest being burned away.

6. The engine oil outlet fitting had approximately 5" of hose, 2 hose clamps and approximately 10" of aluminum tubing still intact, the rest being burned away.

7. Engine mount ring still intact and attached to the engine. The mount arms are bent and broken.

The fire seal is bent toward the front of the engine and still intact.

8. The CO² line is still in place and bent slightly.

9. Head baffles partially burned away from cylinders numbers 3, 4, 5, 6, 7, 9, 10 and 11.

10. Intake push rods and housings on cylinders numbers 2, 4, 6 and 14 were bent presumably due to impact.

Exhaust push rods and housings on cylinders numbers 2, 4 and 6 were bent presumably due to impact.

11. Intake tappet and guide of number 4 cylinder is broken off flush with the crankcase.

Lower fins of number 4 cylinder are mashed.

12. All rocker box drain hoses have been burned off.

13. Exhaust pipes missing from cylinders numbers 10 and 11.

Defendants' Exhibit A-4—(Continued)

External Visual Inspection

Left Engine

14. Exhaust rocker box broken off of number 2 cylinder.

All other cylinder assemblies and push rod assemblies are intact.

Hydraulic pump

Serial number BC 659-R

Mounted on right side of engine.

Intact and not burned except hoses burned off completely.

Vacuum pump

Serial number missing.

Intact and not burned except hoses burned off completely.

Propeller feathering motor and pump

Serial number missing.

Motor partially burned away at brush end.

Oil inlet fitting broken off.

Oil outlet elbow and line intact with rubber covering of flexible steel hose burned off.

Tachometer

Intact with connections burned off.

Starter

Serial number missing.

Intact except terminal attaching cover missing and terminal outlet box partly burned away.

Approximately 2' of cable still attached with insulation burned off.

Defendants' Exhibit A-4—(Continued)

Generator

Serial number A-10312.

Attached to engine.

Brush cover torn off.

All leads burned off.

Magneto booster

Attached to part of engine mount.

Wires burned off.

Junction box

Attached to part of engine mount.

Wires burned but most of flex, conduit still attached.

Propeller governor

Missing.

Left Engine

Internal Visual Inspection

After disassembly all internal engine parts appeared in working order with no evidence of failure.

Visual inspection, including that of the master rod bearings, showed no evidence of overspeeding of the engine.

Ample lubrication inside the engine was evident throughout.

Left Engine Accessories

Accessories disassembled for inspection.

Carburetor

Model PD12F5

Serial number 72220

Defendants' Exhibit A-4—(Continued)

1. All hoses have been burned off.
2. Carburetor loose from engine due to broken engine mounting pad.
3. Lower part of scoop still attached.
4. Mixture and throttle control arms are bent but still operative.
5. Throttle linkage broken but still bolted to carburetor.
6. The idle valve shaft is broken and the linkage torn loose from the throttle shaft.
7. The idle valve was subject to intense heat and consequently seized in the bushing at a position indicative of approximately $\frac{1}{2}$ throttle opening.
8. All rubber diaphragms have been burned, and the remainder of the carburetor subject to intense heat, destroying evidence of functioning ability.

Fuel pump

Type—Chandler Evans

Model—4101

Serial number missing.

1. The fuel "in" and "out" hoses and the fuel drain line have been burned off at the pump.
2. The pressure regulator screw cover has been broken off.

Defendants' Exhibit A-4—(Continued)

3. Internally the pump vanes have rusted and seized to the rotor and rear bearing.
4. The diaphragms have been damaged by intense heat as well as the remainder of the unit.

Left Magneto

Model—Bosch SF 14

Serial number missing

1. The covers have been burned off.
2. The distributor block, rotor, and coil assemblies have been badly damaged by fire.
3. Other than indications of intense heat, the remainder of the magneto shows no signs of failure.

Right Magneto

Model—Bosch SF 14

Serial number missing

1. The covers have been burned off.
2. The distributor block, rotor and coil assemblies have been badly damaged by fire.
3. Other than indications of intense heat, the remainder of the magneto shows no sign of failure.

Left Engine Propeller

Position assumed because of damage evidence.

1. The engine propeller shaft and reduction gear assembly were still attached to the propeller.

Defendants' Exhibit A-4—(Continued)

2. All propeller locks and nuts were in their proper places.

3. No. 1 blade:

Blade twisted starting about 3' from the tip.

No burning evident.

Driven gear is broken and spread approximately $\frac{1}{2}$ " and small piece about $\frac{1}{2}$ " long broken out.

No. 2 blade:

Blade bent back with sweeping curve the entire length of the blade (bend approximately 45°).

No burning evident.

Driven gear is broken and spread approximately $\frac{3}{4}$ ".

No. 3 blade:

Blade bent back slightly (approximately 5°).

No bad nicks or dents on blade.

No burning evident.

Driven gear is broken and spread approximately 1".

4. From visual inspection there appears to be no mechanical defects in the dome assembly, except marks and nicks on the drive gear where driven gears broke.

Admitted October 12, 1950.

The Court: Does anyone know of any other exhibit not ruled upon by the Court? Defendant's Exhibit A-7?

Mr. Wilkerson: Your Honor, we would like to withdraw that at this time as counsel has entered into a stipulation as to the names of the 27 passengers aboard the plane.

The Court: Exhibit A-7 is now withdrawn and returned to counsel who offered it originally. [289]

Mr. Matthews: I have an understanding with Mr. Houghton—correct me if I am wrong—that where the middle name is used in some instances and the initial is used in some instances that there will be no objection.

Mr. Houghton: No objection at all, your Honor, on that. They are the same people.

Mr. Wilkerson: Our stipulation did not cover the names of the three crew members. We had understood from you that you would stipulate Mr. William F. Leland, the owner of the plane; Mr. Chavers and Mr. Love were the three crew members.

Mr. Houghton: We will stipulate to that. I might say also we have agreed to stipulate that counsel for defendants have a witness who would testify that the weight of Mr. Love, the other member of the crew, was 150 pounds.

The Court: And that the Court may regard this statement as evidence of that person's weight, the same as if the witness mentioned had appeared and had so testified?

Mr. Houghton: That is correct, your Honor.

Mr. Matthews: Defendants rest.

Mr. Houghton: Before defendants rest, I was going to suggest—you remember that at the beginning of the trial we reserved the right to introduce in our case in chief further evidence, if we decided we wished to, on [290] the matter of value of the plane or its equivalent, the amount of the plane's damage.

The Court: At the time of the damage?

Mr. Houghton: Yes, your Honor, and I thought possibly it should be done before the defendants rest. If I may take that up now, I think I will call Mr. Jandl to the stand.

The Court: Is there any objection to this being done before the defendant rests?

Mr. Matthews: No, your Honor.

The Court: Plaintiffs' case in chief is opened up for this purpose.

R. P. JANDL

recalled as a witness by and on behalf of plaintiffs, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Houghton:

Q. Mr. Jandl, you have been sworn. I understand a day or two after Mr. Leland's death you were appointed his administrator by the Superior Court of this county? A. Yes.

Q. Did you take charge of the wreckage of the plane? A. Yes. [291]

Q. At least constructive charge? Will you tell

(Testimony of R. P. Jandl.)

us whether there was any part of that plane or its accessories or equipment that was of any value for the purpose for which they were designed or intended?

A. No, nothing could be used at all. It was all just a pile of junk.

Q. What disposition was made of it?

A. It was sold to the highest bidder of three bidders.

Q. Was that simply to be melted down as scrap metal? A. To be melted down as junk, yes.

Q. Was that procedure authorized by order of the King County Superior Court? A. Yes.

(Court order marked Plaintiffs' Exhibit 9 for identification.)

Mr. Houghton: You don't have any objection to the form of this, that is, you agree that it is a true copy?

Mr. Matthews: No objection to the form.

Mr. Houghton: I offer Plaintiffs' Exhibit 9 in evidence.

The Court: As bearing upon what issue?

Mr. Houghton: Upon the issue of the amount of plaintiffs' damages. I want to tie it up later with the specific item.

The Court: Is there any objection? [292]

Mr. Wilkerson: Objected to as being immaterial. The stipulation says, "It is agreed that the crash"—we will withdraw our objection.

The Court: It is admitted.

(Testimony of R. P. Jandl.)

(Plaintiffs' Exhibit 9 received in evidence.)

The Court: What do you call that?

Mr. Houghton: It is called "Order directing administrator to dispose of personal property."

The Court: In other words, it is an order of sale of the remains of the plane?

Mr. Houghton: That is right, signed by Judge Frater on March 9, 1949.

Q. (By Mr. Houghton): Did you dispose of this salvage in accordance with Plaintiffs' Exhibit 9 immediately after Judge Frater signed that order? A. Yes, it was the same day.

Q. Did you notify D. K. MacDonald & Company, the adjusters for the defendants, of the disposition of this salvage immediately after you disposed of it?

A. Yes.

Q. And you told them the amount received for it? A. They knew the whole story.

Q. You had worked with them right along in disposing of it? [293] A. Yes.

Q. So that they would know immediately after March 9 how much was received for the salvage?

A. Yes.

Mr. Houghton: You may take the witness.

Mr. Matthews: No questions.

Mr. Houghton: That is all the evidence we want to give on that.

The Court: Is there any direct evidence of value of the plane immediately before the crash?

Mr. Houghton: No. The insurance policy is in evidence and it states the agreed value of the plane, and we can argue that if it is raised later, but it is our opinion that the law is that that is not only prima facie evidence during the life of the policy, but is conclusive evidence. In addition to that, of course, there is the testimony that the defendants brought out, that it was in excellent condition up to the time of the crash.

The Court: Do the plaintiffs finally rest?

Mr. Houghton: Yes, the plaintiffs rest, your Honor.

The Court: Is there any further testimony which the defendant wishes to offer in view of this latest testimony of the plaintiffs?

Mr. Matthews: Defendants rest.

The Court: Is there any rebuttal? [294]

Mr. Cluck: Yes, there will be brief rebuttal, your Honor, but it is just about three minutes before twelve and I rather think time could be saved if we devoted that time, with the Court's permission, to organizing.

The Court: Is there any objection to that suggestion? Court is now recessed until 1:30 this afternoon.

(At 11:59 a.m., Thursday, October 12, 1950, proceedings recessed until 1:30 p.m. Thursday, October 12, 1950.)

Seattle, Washington, October 12, 1950—1:30 P.M.

The Court: Plaintiffs may proceed with plaintiffs' rebuttal.

Mr. Cluck: If the Court please, I think Mr. Matthews has a certified copy of Civil Aeronautics Administration Form 309A, that operations limitation record of this aircraft. I would like to introduce that same form, covered in the stipulation.

The Court: Are you not able to get a white background photostat?

Mr. Cluck: Your Honor, that was procured before the Court had made that request, and we shall be glad to substitute one with a white background for this exhibit [295] as promptly as we can.

The Court: On that understanding, Plaintiffs' Exhibit 10 is now marked for identification.

(CAA Form 309A marked Plaintiffs' Exhibit 10 for identification.)

Mr. Cluck: We offer this in evidence as being a certified copy of the form entitled Operations Limitations, CAA Form 309A, on this particular DC-3 aircraft.

Mr. Matthews: No objection.

The Court: Admitted.

(Plaintiffs' Exhibit 10 received in evidence.)

PLAINTIFFS' EXHIBIT No. 10

Department of Commerce

Washington, April 19, 1949.

I Hereby Certify that the annexed is a true copy of the Operation Limitations, Form ACA309a, dated July 15, 1947, covering Douglas aircraft, manufacturer's serial number 10181, registration number 79025, which was in full force and effect January 2, 1949, according to records on file in the Civil Aeronautics Administration.

/s/ EDWARD F. DODD,
Chief, Aircraft Records
Section.

Office of the Secretary

I Hereby Certify that Edward F. Dodd, who signed the foregoing certificate, is now, and was at the time of signing, Chief, Aircraft Records Section, Civil Aeronautics Administration and that full faith and credit should be given his certificate as such.

In Witness Whereof, I have hereunto subscribed my name and caused the seal of the Department of Commerce to be affixed this nineteenth day of April, one thousand nine hundred and forty-nine.

For the Secretary of Commerce:

[Seal] /s/ GERALD MAY,
Chief Clerk.

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R

OPERATION LIMITATIONS

CAA IDENT. MARK
NC 79025

MAKE	DATE MFRD.	SERIAL NO.	DESIGNATION	TYPE CERT.
Douglas Model DO3C-6103C	9/43	10181	Land*	669

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED (All Values Are Maximum and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS						TRUE INDICATED AIR SPEED			
TAKE-OFF	MINUTES	ALTITUDE	IN. HG	R. P. M.	H. P.	FUEL OCT.	CLIMB OR LEVEL FLIGHT	WEIGHT	M. P. H. KNOTS
One	Any	Any	48.0	2700	1200	91	Up to 24,800	217	
TAKE-OFF	OR						GLIDE OR DIVE (Smooth Air Only)	Up to 24,800	262
One	Any	Any	47.0	2750	1200	91	FLAPS EXTENDED	Up to 24,800	112
SEA LEVEL		XX	41.5	2550	1050	91	CLIMB OR LEVEL FLIGHT	25,200	211
SEA LEVEL							GLIDE OR DIVE (Smooth Air Only)	25,200	257
ALTITUDE	XXXX	7500	32.5	2550	1050	91	FLAPS EXTENDED	25,200	112
ALTITUDE							CLIMB or	DATUM	
LOW IMP.							Low. flight	26,900	200
LOW IMP.							Glide or	26,900	241
HIGH IMP.							Dive	26,900	241
HIGH IMP.							Flaps Ex-	26,900	112
							tended	26,900	112
							Datum: I.E. Center section		
							wing. (Station 192.5)		

USEABLE CEILINGS AND ADDITIONAL CONDITIONS*

CEILINGS (FT.)	WEIGHT	R. P. M.	FOLD PRESS.	FUEL OCT.	T. I. A. S.	PROP. DEICER	WING DEICER
9,500	26,900	2550	P.T.	91	112	---	Yes, but Not Operating
11,600	25,200	2550	P.T.	91	112	---	Yes, but Not Operating

*Standard air, any engine inoperative, inoperative propeller fully feathered, no air intake on "cold air."

Reduce useable ceiling when Items 211f, 211h or 1 installed.

MAXIMUM TAKE-OFF WEIGHT

MAXIMUM LANDING WEIGHT

25,200 (Pass)	SEA	25,200 (Pass)	LAND
26,900 (Cargo)		26,900 (Cargo)	

OPERATIONS AUTHORIZED

C.G. Range 47.1 (11% MAC) to 47.6 (28% MAC)

*See weight and Balance Data Section for loading information.

INSPECTOR'S SIGNATURE

R. L. Ogden 726

DATE

July 15, 1947

ADDITIONAL OPERATIONS AUTHORIZED

YES

NO

(IF YES SEE OVER)

THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT

FOLD HERE

LOUIS MUGGE

called as a witness by and on behalf of plaintiffs, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck:

Q. Will you state your full name?

A. Louis Charles Mugge.

Q. By whom are you employed?

A. I am an agent of the Civil Aeronautics Administration.

Q. In what capacity?

A. As an aviation safety agent assigned to non-scheduled [296] and scheduled air carriers.

Q. You are familiar generally with the CAA Form 309A entitled Operations Limitations?

A. Generally, yes, sir.

Q. Would you please refer to this Operations Limitations form identified as Plaintiffs' Exhibit 10 and read the sentence appearing on the bottom of that form under the heading "Operations Authorized"? A. Did you want the sentence?

Q. Yes.

The Court: You may read it aloud. That document shown you is already in evidence.

The Witness: "See weight and balance data."

Q. No, the sentence just preceding.

A. "C. G. Range plus 47.1 (11% MAC) to plus 70.6 (28% MAC)."

Q. And the next sentence?

(Testimony of Louis Mugge.)

A. An asterisk sentence, "See weight and Balance Data Section for loading information."

Q. What do the initials CG mean?

A. CG is commonly referred to as center of gravity.

Q. What does plus 47.1 refer to?

A. That is a position relative to your CG location.

Q. What do the figures refer to, inches, pounds or what? A. In this case, it is inches.

Q. Inches from where, measuring where? [297]

A. From your CG location.

Q. Would you repeat again what 47.1 refers to?

A. Your 47.1 is your index in location to your center of gravity.

Q. When we speak of center of gravity, just in laymen's language, what do we mean?

A. Center of gravity is the point on the aircraft which would be your balance point.

Q. In other words, you could conceive of your aircraft much as you would a lever and fulcrum?

A. That is right.

Q. Where the center of gravity is might depend upon where your weight, whatever it is, is placed with reference to the position on the aircraft, is that right? A. That is right.

Q. It would vary depending on whether you put the loads towards the tail section, up in the nose, the center or any other point?

A. The CG is a fixed location on your aircraft,

(Testimony of Louis Mugge.)

and these other figures are limitations that you might utilize in your loading of the aircraft.

Q. With reference to the fixed position?

A. Yes.

Q. When you say plus 47.1, what does that mean?

A. I am not too sure of that figure. I believe it is [298] the inches in relation to your CG.

Q. What does 11% MAC mean?

A. That shows the percentage in relation to your CG. There is two different systems.

Q. What do the initials MAC stand for?

A. That I don't recall offhand. I am not too familiar with that phase.

Q. The whole sentence is a formula for weight distribution whatever the weight is in your aircraft, is that correct?

A. Right.

Q. Would you refer to the flight plan filed in connection with this aircraft, which has been identified as Defendant's Exhibit A-14. There is a notation referring to time of filing on that flight plan. Would you tell us what it is, read it into the record exactly as it appears on the exhibit, the time it was filed.

A. I will have to find it first. It says "Received RB January 3 0257 Z 1949."

Q. What measurement of time is used in connection with filing those forms?

A. Z designates it as Zebra or Greenwich time.

Q. What difference is there between the Greenwich time and Pacific Standard Time?

(Testimony of Louis Mugge.)

A. It is an eight hour plus zone, that is, the Greenwich time would have been eight hours earlier than our time. [299]

Q. So the time it was used, the tower in Seattle——

A. That's right.

Q. ——what would be the time of filing in terms of our ordinary time at the tower here in Seattle?

A. That would have been 6:57 p.m.

Q. You have had something to do with aircraft for quite a while, have you?

A. Some time, yes, sir.

Q. When did you first enter the field?

A. I have been active in aviation since 1935.

Q. Would you outline briefly for us what the background of your experience has been?

A. Yes, sir. I have been a naval aviator with the Naval Air Transport Service during the war. Prior to that, I was a mechanic with the Navy. My pilot hours are about 6000 hours, about 5500 hours of which is in multiple engine aircraft. I hold an airline transport rating and an AE mechanic's certificate.

Q. Have you had anything to do with flying under icing conditions in DC-3 aircraft?

A. Yes, sir, I have.

Q. During what period and in what area?

A. I don't recall the exact number of hours in icing experience. I have about 750 hours instrument time, of which maybe 15 per cent of that is in some phase of icing. [300]

Q. Have you flown DC-3's with overloads?

(Testimony of Louis Mugge.)

A. Yes, I have.

Q. Up to what weights?

A. I don't recall exactly. Our normal operation——

Mr. Matthews: Objected to as incompetent, irrelevant and immaterial.

Mr. Cluck: It is part of the experience.

Mr. Matthews: We tried to show in our case in chief, if the Court please, of various witnesses the experiences they had had in flying airplanes with small accumulations of ice and frost on the wings, and counsel objected and the Court sustained the objection on the theory that wasn't proper. I think it should be on the same theory this is objectionable, because we would have to go into all the facts and circumstances, the condition of the plane, condition of the weather, the pilot's experience. It seems to me we get very far afield of the issues involved in this lawsuit, the fact that somebody else flew a plane overloaded and may or may not have got away with it.

The Court: I do not understand the purpose, and I would think the Court's ruling in this instance should be the same as before.

Mr. Cluck: I will withdraw the question, your Honor.

Q. You are familiar in general with the path taken on [301] the runway by the aircraft that is the subject matter of this suit, are you not?

A. Yes, sir. I was a member of the investigation board.

(Testimony of Louis Mugge.)

Q. I am not asking you about anything having to do with any investigation. All I want to ask you is whether you saw the tracks on the runway or on the ground made by this aircraft?

A. Yes, I did.

Q. You have your own direct personal knowledge of what that was? A. Yes.

Q. Would you briefly describe the course taken by the aircraft from the point where it started to turn off the runway up to the point where it first became airborne?

Mr. Matthews: Your Honor, before the witness answers this question, may I ask one or two questions to show how he obtained this information which I think will have a definite bearing upon its admissibility in conformity with the consistent rulings of the Court throughout the trial.

The Court: If it is a fact that any of this information went into the report of the Board, I am going to sustain objection to it. I advise counsel of it in advance.

Mr. Cluck: It did, your Honor. [302]

The Court: I think that was the sense of the Court's previous ruling in connection with the defendants' case. It will be the same now.

Mr. Cluck: Very well.

Q. (By Mr. Cluck): When you referred a few minutes ago to 6:57 as having been the time of filing of the flight plan, you were referring to 6:57 the evening of January 2, is that correct, just so we have it very clear?

(Testimony of Louis Mugge.)

A. That would be right.

Q. 1949? A. 1949.

Q. Referring for a moment further to the operations limitations form before you, just above and before the portion of it marked "Operations Authorized" is the insertion "Maximum Take-Off Weight 25,200 passenger, 26,900 cargo." What does that mean in terms of take-off weight? For what purpose is that insertion made?

Mr. Matthews: If the Court please, I think the document speaks for itself. It provides a take-off weight maximum when the plane is carrying passengers, and those were the conditions here involved.

The Court: What do you seek to prove which is not implied?

Mr. Cluck: I realize it is difficult to frame the question. I seek to prove that each of these maximums [303] are applied by the CAA as one that will permit single engine take-off, that is, to provide for single engine take-off in emergency with safety factors.

Mr. Matthews: Whatever the reasons were that motivated the CAA in providing these safety factors in these maximum take-off weights, it is admitted already in evidence that the maximum take-off weight for an airplane carrying passengers is the figure that has already been admitted in the request for admissions that have been made by the plaintiffs in this case, and it seems to me to serve no useful purpose in going into the question of the

(Testimony of Louis Mugge.)

reasons for the fixing of those limitations. They have the form of law, and whether they are proper limitations or improper limitations, they are admitted to be the limitations applicable to this flight and the safety margins that the CAA in its wisdom concluded proper and necessary.

Mr. Cluck: The reply to that is that that is a matter that counsel can argue as they see fit. We, of course, take the view that overloading on the basis of the evidence is clearly out of the case, but they have asked us and we did admit that the operations form contained certain entries. It seems to me for the purpose of clarity that a brief answer to this question, which could be provided by an extended examination of the applicable CAA regulations, could be answered in a word [304] by this witness if he knows.

The Court: The objection is overruled. Read the question.

(Last question read by reporter.)

The Witness: It simply means that your gross load will not exceed 25,200 when you are carrying passengers, or you are allowed to go 26,900 when you are carrying cargo.

Mr. Matthews: I move the last part of the answer be stricken. It is not applicable to this case because the plane was not carrying cargo.

Mr. Cluck: It is still a part of the form counsel themselves asked us to admit as being part of the record.

(Testimony of Louis Mugge.)

Mr. Matthews: We only asked you to admit what the maximum take-off weight was on a flight of the type here involved. You are trying to bring in a different type of flight, cargo operations.

The Court: The statement as to cargo will be stricken. The Court will disregard it.

Q. (By Mr. Cluck): The maximum weight of passengers is computed on what basis?

Mr. Matthews: I submit it makes no difference upon what basis it was computed. It is a rule and regulation of the Civil Aeronautics Administration which has the force and effect of law and becomes the absolute maximum [305] limitations, makes no difference how they computed it, why they computed it.

Mr. Cluck: This is the same argument we made a moment ago, and it is just following up on the prior question, to get the information we told the Court we intend to.

The Court: Overruled.

Mr. Matthews: May I ask the witness one or two qualifying questions to see if he is qualified to answer the question?

The Court: You may do so.

Mr. Matthews: By whom were these maximum take-off weights computed?

The Witness: This is strictly engineering data and computed by the manufacturers after extensive tests.

Mr. Matthews: Did you have anything to do with computing them?

(Testimony of Louis Mugge.)

The Witness: No, I did not.

The Court: Have you been to school and received any education which concerned this detail?

The Witness: No, I have not.

Mr. Cluck: May I ask one question?

The Court: Is there any other question you wish to ask? You may inquire.

Q. (By Mr. Cluck): Are you familiar with application of [306] these requirements in respect to their issuance of airworthiness certificates or otherwise? A. No, that is not my department.

Mr. Cluck: I will withdraw the question, then. That is all.

Mr. Matthews: No questions.

The Court: You may step down. Call the next witness.

Mr. Cluck: Mr. Miner.

The Court: I believe Mr. Miner has already been sworn. You may resume the stand.

DOUGLAS MINER

called as a witness by and on behalf of plaintiffs, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck:

The Court: What is your name for the record?

The Witness: Douglas D. Miner.

Q. I believe you testified, Mr. Miner, that you

(Testimony of Douglas Miner.)

operated an aircraft maintenance business down on Boeing Field? A. That's right.

Q. And you perform work on contract or otherwise for various operators of aircraft?

A. Yes. [307]

Q. And did so for Mr. Leland? A. Yes.

Q. Did you have anything to do with the removal of ice on the airplane that is the subject matter of this suit on the evening of January 2, 1949? A. Yes.

Q. Would you tell in your own words what you did in that connection?

A. Late in the afternoon of January 2, we washed the snow from the wings and tail surface of the airplane with high pressure water. Prior to the take-off, Mr. Chavers, Mr. Leland and myself washed the wings and the tail surfaces with alcohol.

Q. Could you go into a little more detail? Your first operation was washing the frost and snow and ice with the high pressure hose, is that it?

A. Yes, it was loose snow at that time.

Q. That was at what hour?

A. About 5 or 5:30.

Q. Mr. Leland asked that you do that, is that right? A. Yes.

Q. Approximately when did you complete that phase of the work?

A. I would say about 6 o'clock.

Q. Then what did you do after that? When did you begin [308] doing any further work, if any, approximately?

(Testimony of Douglas Miner.)

A. About 8:30 or 9 we started washing with alcohol.

Q. Approximately how long prior to the taxiing of the aircraft had you completed the removal of the ice, if you remember?

A. Five or ten minutes.

Q. Five or ten minutes prior to the time that it began taxiing? A. Yes.

Q. Would you describe in just a little more detail what you did with the alcohol?

A. We took buckets of this alcohol——

Q. What kind of alcohol was it?

A. Isopropyl alcohol.

Q. Is that used regularly in connection with ice removal?

A. Yes, that is the one solution everybody uses.

The Court: How do you spell the word before the word alcohol?

The Witness: I-s-o-p-r-o-p-e-l, I believe.

Q. Tell us just as though we had never seen it what in general you did with the alcohol.

A. We took ordinary floor mops and dipped them in this alcohol and scrubbed the wings with it. That scrubs off the ice already there and makes the surface so that ice won't form on it so readily again. [309]

Q. Did you go all over the wings?

A. All over the upper surfaces of the wings and tail surfaces.

Q. Tell us what condition the aircraft was in

(Testimony of Douglas Miner.)

with respect to presence of ice, if any, when you got through with your operation?

A. The upper surfaces, as far as I could see, were free from ice. Mr. Leland and Mr. Chavers seemed to be of the same opinion.

Mr. Matthews: I object to the last part of the statement and move it be stricken.

The Court: It will have to be stricken. It is a comment upon the others' attitudes.

Q. Did you have anything further to add?

A. No.

Q. What about the condition of the under-surfaces?

A. There were very small streams, just where drips of water had run over the leading edge to the trailing edge. I don't think any of them were over a quarter of an inch wide, and smooth.

Q. Reference was made to what were termed minute icicles, an eighth to a quarter of an inch long, from the rivets of the airplane. Did you notice those, or were they there?

A. I didn't notice them.

Q. How many times was it that you worked at the matter [310] of removing ice or frost?

A. Twice.

Q. Those two times? When you applied the water the first time, from what position was it applied with reference to the aircraft?

A. Above the leading edge of the wings and tail surfaces.

Q. Why was it applied from that position?

(Testimony of Douglas Miner.)

A. The trailing edge of the wings is lower, therefore the water would run freely and wash all the snow off and drain better.

Q. Did you have occasion to go into the cockpit of the airplane before take-off? A. Yes.

Q. Approximately what time did you do that?

A. Well, it was while the passengers were loading, I imagine it would be about 20 minutes before the take-off.

Q. What was the condition as to visibility at that time?

A. At that time the cockpit was high enough so that you could look over the top of the fog and see lights all over the city and see the boundary lights on the south end of the field, see all the lights on the administration building.

Q. The fog then was low-lying ground fog, is that about it? A. Yes.

Mr. Chuck: That is all. [311]

Cross-Examination

By Mr. Matthews:

Q. Had you ever had any experience before this occasion that you have just testified to in removing ice from an airplane? A. No.

Q. When Mr. Leland asked you to remove the ice from the airplane, I will ask you if you stated to him, "I don't know how"?

A. Well, there is a question of time. Which ice removal are you speaking of?

(Testimony of Douglas Miner.)

Q. Did you make that statement to him at any time that evening? A. I don't recall.

Q. You said a minute ago, you asked me which time I was referring to. Did you have two different conversations with Mr. Leland about moving the ice?

A. The first one was by telephone. He knew it had snowed and he called and asked us to get that snow off the wings.

Q. What did you tell him?

A. I probably told him I would take it off.

Q. Didn't you tell him you didn't know how?

A. I don't think I did, but I am not sure.

Q. Had you ever had any previous experience in removing ice from airplanes? [312]

A. Very little.

Q. Pardon? A. Very little, if any.

Q. Isn't that what you told Mr. Leland?

A. I could have.

Q. As a matter of fact, you have omitted one step about this attempt to remove this snow and frost from the wings, haven't you?

A. I don't think so.

Q. Don't you remember that you took just an ordinary hemp rope and sawed this hemp rope back and forth fore and aft across the wings in an attempt to remove the ice?

A. That was in conjunction with the water, to pull off a major portion of the snow so you wouldn't have so much to wash off.

Q. Isn't it a fact that you tried to remove it

(Testimony of Douglas Miner.)

with a rope, roughed it up, were unable to do so, and that is the reason you used the water?

A. No, that is untrue. We attempted to take off portions of the snow with the rope.

Q. How much snow and ice was on the airplane when you started this operation?

A. I imagine about three inches.

Q. How long had the airplane been standing out in the open? How many days? [313]

A. Several days.

Q. During most of that time, I will ask you to state whether or not the weather had been around or below freezing?

A. I believe the preceding day was quite warm, but that day it was cold.

Q. Around the freezing point? A. Yes.

Q. Did this airplane have wing covers?

A. It had wing covers, yes.

Q. Had Mr. Leland at any time during that day put the wing covers on the airplane? A. No.

Q. What are the purpose of wing covers?

A. They are to protect the wings from getting snow and ice on them.

Q. Was the airplane taken inside into a warm place at any time for the purpose of removing this ice? A. No.

Q. Was this hot water or cold water that you squirted on the airplane? A. Cold.

Q. Do you remember having a conversation with Mr. Vineyard, the gentleman seated here in the front row, concerning the water that you had

(Testimony of Douglas Miner.)

squirted onto the wings in an attempt to remove the ice? [314] A. No.

Q. Do you remember him asking you the manner in which the water had been squirted onto the wings and you said—do you remember what you told Mr. Vineyard as to how you applied the water to the wings?

A. I believe he testified that, but I don't think there was a verbal conversation with Mr. Vineyard and I on it.

Q. How did you apply this cold water to the wings?

A. From standing on a workstand at the leading edge of the wing and blasting the snow and ice off with a high pressure hose.

Q. And this water then, this cold water, was squirted in both directions both fore and aft of the wings? A. No, just aft.

Q. You were standing on a workstand in front of the wing? A. Yes.

Q. Did you squirt the water across the front of the leading edge? A. Yes.

Q. That leading edge curves in a gentle, symmetric curve, rather egg-shaped, does it not?

A. Yes.

Q. And the water was being squirted towards that leading edge?

A. On top of the leading edge. [315]

Q. And along the leading edge, wasn't it right at the leading edge? A. Very little.

Q. And that water, some of it, would run down,

(Testimony of Douglas Miner.)

run around the leading edge and follow the leading edge back towards the trailing edge of the plane?

A. Very little.

Q. The wing slopes starting at the trailing edge and going towards the tail of the plane, the water would slope in that direction, would it not, from the leading edge aft towards the rear?

A. Yes.

Q. When you applied this alcohol, did you apply any of the alcohol underneath the wings?

A. No.

Q. How much alcohol did you use?

A. About seven and a half gallons.

Q. And you dampened the mop slightly with this alcohol, isn't that right?

A. The mop was wet, but not dripping or drenched.

Q. Do you know how many feet or square feet of surface there is on the wings of a Douglas DC-3 airplane, this particular airplane? A. No.

Q. Have you even a rough idea? [316]

A. No.

Q. This water could have gotten through the aileron slots and gotten under the side of the aileron, is that not right? A. It is possible.

Q. The aileron is located at the trailing edge of the wing, is it not? A. Yes.

Q. And it is one of the controls in the handling of the airplane? A. Yes.

Q. And there is a space or a slot between the wing and the aileron? A. Yes.

(Testimony of Douglas Miner.)

Q. And nothing to prevent this water that you were squirting from the wing from running down into this slot and underneath the wings?

A. No.

Q. You were applying this cold water about what time? A. 5:30 or 6 o'clock.

Q. Do you remember what the temperature was at that time?

A. Slightly above freezing, I think.

Q. At 1802, that would be two minutes after six, were you applying the water at that time?

A. I think the operation was finished by that time. [317]

Q. Did you ever make a statement under oath that the temperature at the time you were applying this water was 30 degrees? A. I may have.

Q. Do you have any recollection whether you did or didn't? A. No, I don't.

Q. Would you say that you had any independent recollection now as to whether or not it was? That would be below freezing, of course.

A. I would say it would be near that temperature.

Q. Right around 30 degrees? A. Yes, sir.

Q. Did the temperature continue to drop from six o'clock on? A. I believe it did.

Q. Can you tell us what the condition of the ground was where you were working, around where you were working in this operation?

A. All the ground was very slippery.

Q. Because of ice and snow? A. Yes.

(Testimony of Douglas Miner.)

Q. Was any attempt made to remove the ice and snow from the fuselage of the plane? A. No.

Q. You didn't at any time saw this rope back and forth across the fuselage? [318] A. No.

Q. Did you apply any water to the fuselage?

A. No.

Q. It was after sundown when you were applying this water? It was dark?

A. Well, it was near dark, getting dark, at any rate.

Q. Did you use any lights? A. Yes.

Q. I will ask you if you ever made a statement under oath to anyone that you did not use any lights during the operation that you have just referred to?

A. The operation I refer to is washing off the airplane with the water earlier in the evening. At that time there was sufficient light, there was high lights on the poles there.

Q. You did not use any lights other than some lights that may have been around the field?

A. Well, the lights were very close to the airplane. The lighting was sufficiently good to see that.

The Court: What time are you speaking of when you said you used some lights?

The Witness: Between five and six.

Q. Did you ever make a statement that this ice caused a rough effect or a stubble effect on the wing?

A. That was later in the evening, that ice.

(Testimony of Douglas Miner.)

Q. Well, tell us when that rough stubble effect began [319] to form?

A. That, I believe, formed more during the time it was parked in front of the administration building than any other time.

Q. And did that form over the entire surface of the wings? A. I believe so.

Q. Did you ever make the statement that this frost stuck right onto the water that was on the wing? A. I don't believe so.

Q. I will ask you if you ever made under oath this statement:

“Q. You spoke of the rough effect, or, I presume, a stubble effect. Did that form over the entire surface of the wing?

“A. I believe it did. It was just like white frost, only it wasn't white, it was clear, and it stuck right on the water that was on the wing”?

A. I made that statement.

Q. I will ask you if you ever made this statement:

“Q. Was there any attempt made to get the ice off the wings with a rope?

“A. Yes, that was prior to the hosing operations”?

A. Yes.

The Court: With what?

Mr. Matthews: Prior to the hosing [320] operations.

The Court: With what instrument?

(Testimony of Douglas Miner.)

The Witness: A rope.

“Q. Was there any attempt made to get the ice off the wings with a rope?

“A. Yes, that was prior to the hosing operations.

“Q. How successful was that?

“A. That left a very rough surface.”

Did you make such a statement? A. Yes.

Q. Was the ice washed off completely before the alcohol solution was applied?

A. That was three or four hours prior to the alcohol solution.

Q. Maybe you didn't understand my question. Was the ice washed off completely before the alcohol solution was put on? A. Yes.

Q. I will ask you if you ever made this statement under oath:

“Q. And was the ice washed off completely before the alcohol solution was put on?

“A. No, it was rubbed off with it at the same time”?

A. That is a little different timing there. More ice had accumulated since it was washed off with a hose.

Q. Was there any attempt made to get the ice off of the [321] stabilizers or the ailerons?

A. Yes.

Q. I will ask you if you ever made this statement:—

Mr. Chuck: Your Honor, we object to counsel's

(Testimony of Douglas Miner.)

asking these questions. I notice he is referring to the transcript of the CAA hearing. It is simply an indirect way of asking the witness about something that was not properly before the Court at this time.

Mr. Matthews: It is not an exhibit. I am just asking this witness what I am referring to.

The Court: If that is a part of the CAB report, I do not think you can use it in this instance any more than in the other two in which the matter has been before the Court. The transcript of the proceedings is a part of the report, is it not? I do not see how you can divide it into parts. At least, it is such a debatable question that I don't think it is appropriate. I think the Court should rule against you and the Court does.

If we are going to have that rule against using CAB reports, which is bound to include the official information used in making up the report, any factual data that went into the form of the report as a factual basis must be regarded as a part of it. If you are going to let in three lines of the report, or three lines of some factual showing that caused the person dictating the report, and [322] which was later signed by the Board members, to be used, **you are defeating the spirit of the provisions of the law relating to the use of the report, so I sustain this objection.**

Mr. Matthews: Very well, your Honor. In view of the Court's ruling, I will have to discontinue any further examination along that line.

(Testimony of Douglas Miner.)

Q. (By Mr. Matthews): Mr. Miner, what was the capacity of the oil tanks on this airplane?

A. Twenty-nine gallons each.

Q. Two twenty-nine gallon tanks?

A. Right.

Mr. Matthews: No further questions.

The Court: By "oil tanks," what do you mean?

The Witness: Lubricating oil.

Redirect Examination

By Mr. Cluck:

Q. You mentioned the fuselage of the airplane. In a word, just what part of it is that?

A. That is the main body, or where the passengers are carried.

Q. The portion at right angles to your wings in which the passengers or cargo or whatever it is are placed, is that right? A. Yes. [323]

Q. In response to the question of counsel, you said that you didn't apply water to the fuselage. State why you did not.

A. In the past, snow and ice on the fuselage is not considered too critical.

Q. Was there much on the fuselage?

A. There was enough to show color. I imagine there was two or three inches.

Q. You spoke of the stubble effect while the plane was in front of the administration building. What happened to that afterwards?

A. We washed that off with alcohol.

Mr. Cluck: That is all.

The Court: You may step down. Call the next witness.

Mr. Cluck: Your Honor, Mr. Mugge has asked to be excused. We have no objection.

The Court: Is there any objection to his being excused?

Mr. Matthews: No objection, your Honor.

The Court: Mr. Mugge is excused.

Mr. Cluck: Mr. Wiley.

The Court: You have already been sworn, Mr. Wiley. You may resume the stand. [324]

ROBERT WILEY

called as a witness by and on behalf of plaintiffs, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck:

Q. You testified already, Mr. Wiley, that you were in the tower at the time of the accident?

The Court: Let his name be stated here at this place for the convenience of the record.

Q. Would you give us again your full name?

A. Robert H. Wiley.

Q. You were in the tower at the time of the accident at Boeing Field? A. Yes, sir.

Q. And you were in charge of giving taxi and other clearances to the aircraft taking off?

A. That is correct.

Q. State what other aircraft cleared for take-off

(Testimony of Robert Wiley.)

during the period of a half hour preceding this accident?

Mr. Matthews: If the Court please——

The Court: Has that not already been asked and answered?

Mr. Cluck: No, it was not answered, your Honor. He was going to check his own notes on it, and it was objected [325] to as not being properly part of cross-examination, so we reserved it for rebuttal.

Mr. Matthews: The objection was sustained, as I recall.

The Court: It seems to me it is too late. That should have been part of the case in chief. It is an additional objection, it seems to me. I do not think you should go into this now. This is a matter that should have been proved as a part of the plaintiffs' case in chief.

Mr. Cluck: Could I be heard a moment on that?

The Court: I will hear you.

Mr. Cluck: As previously indicated and covered in the memorandum, it is respectfully submitted that in view of the clear holdings of several cases, that defendants have the burden of showing negligence if that is one of their defenses that they want to prove. We do not agree it makes any difference, because the insurer takes on the risk of negligence along with other risks, but to the extent it comes in the case at all it comes in as part of the affirmative defenses which defendants have alleged and which it is incumbent upon them to prove.

(Testimony of Robert Wiley.)

In the course of their examination of witnesses, they asked Mr. Wiley certain questions with respect to events on the field that night. A good many of the questions and [326] a good part of the subject matter covered by this and other witnesses related to the matter of safety conditions, and we submit it is properly a matter of rebuttal, in the way of meeting that point, to show among other things that scheduled and non-scheduled carriers were using the field regularly that evening shortly before the accident in question, and we could do that by a very brief question and answer.

Mr. Matthews: If the Court please, this witness was on the stand during our case in chief. This same question came up. The question was then asked of this witness, and I am sure I am not wrong in my recollection, we objected at that time because the fact that some airplane had taken off half an hour before would have no bearing upon whether or not this airplane should or should not have taken off, because it is undoubtedly—the testimony here shows conclusively that the weather conditions were variable. The fact that some other airplane may have violated the CAA regulations or minimums—there are different minimums for regular airline planes and non-scheduled planes, and it requires us at this stage of the game in rebuttal to examine into all the facts and circumstances under which some other airplane took off at some other time, and I think certainly that is incompetent, irrelevant and immaterial and does

(Testimony of Robert Wiley.)

not come properly [327] at this time in the case.

The Court: I think permission ought to have been obtained expressly to save this for rebuttal, in view of the fact that it came up in connection with cross-examination of this witness before.

Mr. Cluck: If your Honor please, I will have the court reporter in a recess confirm this, and I will certainly abide by what the reporter says. The record is that one of the grounds for the objection made by counsel was that it was not proper cross-examination because it related to a matter not covered by him in direct. It is true he made the additional argument that is repeated now to the effect that we should not be permitted to inquire at all as to what other aircraft took off, but I think the record will show that the Court sustained the objection on the first ground, that is, it was not proper cross-examination, and we indicated, if I am not incorrect, that we would recall this witness on rebuttal.

The Court: If that was done, the Court will not sustain the objection. I had the impression, and it may be wrong, that it was intended to call him back upon further investigation in connection with that time, but I believe we will have to pass it now, because it will probably take too long to find it in the reporter's notes [328] at this moment.

Mr. Cluck: If counsel prefers, your Honor—it is immaterial to us—if he wishes to re-open his examination of this witness and put us in the position of completing the cross-examination, we have no

(Testimony of Robert Wiley.)

objection to that. It is just that we would like the opportunity to ask the question before the case is over, that's all.

The Court: I think clarity of each position in this matter ought to be reviewed and better established than it is in my mind right now, and I think the reporter's notes are needful for that purpose. We will defer further examination and see how that matter was left at that time. If the Court did do what Mr. Cluck says the Court did,——

Mr. Cluck: Says "I think the Court did."

The Court: ——then I will say that I will not deny to plaintiffs the right to ask proper questions along this line now.

Mr. Cluck: Would you step down from the stand then and wait until a little later, Mr. Wiley?

EDWARD CROOKS

called as a witness by and on behalf of plaintiffs, having been first duly sworn, was examined and testified as follows: [329]

Direct Examination

By Mr. Cluck:

Q. Would you give us your full name?

A. Edward R. Crooks.

Q. By whom are you employed?

A. United Air Lines.

Q. In what capacity? A. Captain.

Q. You are regularly flying now?

A. Yes, sir.

(Testimony of Edward Crooks.)

Q. On what route? A. Seattle—East.

Q. How long have you been flying airplanes?

A. I first flew in 1934.

Q. Could you outline very briefly your aeronautic experience?

A. I obtained a transport license 18 months after my first license; have been barnstorming; started to fly for United Air Lines in 1940; served three and a half years in the Army, Alaskan Division; I have been flying for United Air Lines since my release from the Army. I have held a mechanic's license, do not hold it at the present, however.

Q. What, in brief, was your experience in Alaska?

A. I was chief pilot for one of the division bases in Edmonton, Alberta. We flew all directions, all over Alaska, [330] Canada.

Q. State just in a word your experience as far as flying in icing conditions is concerned.

A. We flew in all types, all kinds of weather in Alaska. The only thing that kept us grounded was 00 weather.

Q. Have you flown DC-3 type aircraft regularly? A. Yes, sir.

Q. You make what are called instrument take-offs regularly?

A. We don't in scheduled operation. We make them as a matter of practice, occasionally; also called to make one every six months for a hood check.

Q. What is an instrument take-off?

(Testimony of Edward Crooks.)

A. You take off entirely by instruments, no visual reference to the ground.

Q. Assuming that a pilot is proficient in instrument flying, is an instrument takeoff dangerous?

Mr. Matthews: Objected to as incompetent, irrelevant and immaterial, there being no evidence in this case that an instrument takeoff was made.

Mr. Cluck: The answer to that, your Honor, is that it would be a matter of choice for the pilot as to whether he managed his takeoff on his instruments or contact. This man, who has had a great deal of experience in instrument takeoffs, can answer very briefly, just answer this single question as to the safety practice in [331] that respect.

The Court: Do you seek to prove in rebuttal by that line of testimony that the pilots in charge of the plane which crashed had available choice of instrument takeoff?

Mr. Cluck: The record itself, and the applicable regulations will show, as a matter of fact, already that they did, your Honor, and we just wanted the record to show, assuming that a pilot is proficient, that instrument takeoffs are regarded as safe procedures. In other words, it is a regularly established aircraft procedure.

Mr. Matthews: I object to that, your Honor. It is incompetent, irrelevant and immaterial, assumes a fact not in issue in this case. There has been no evidence that I know of showing that the takeoff was an instrument takeoff. If there is, I have entirely overlooked it. We asked you in the admis-

(Testimony of Edward Crooks.)

sions, in our requests for admissions, to state whether or not this was an instrument takeoff, and this is stated in your answer to the requests, that you had no way of knowing, everybody was dead and you couldn't find out.

Mr. Cluck: All of that is correct, and I might add just this word as to the application of this, your Honor. Referring back to the point that we think is essential and which we believe is supported uniformly by all applicable cases, the burden of proof in this matter [332] insofar as any issue of negligence is concerned is upon the defendants to show not only that there was negligence, but that the accident resulted from the asserted negligence. Insofar as the manner of takeoff is concerned, no person would know what it was because it would be a matter of inference, but as a part of the evidence of negligence reference was made repeatedly to visibility conditions on the field. Pertinent to that matter is the point which would be covered briefly by this answer, assuming that a pilot is proficient, that an instrument takeoff is provided for in aircraft procedures by which the takeoff is made solely by reference to instruments.

The Court: I think it is within the proper scope of rebuttal. The objection is overruled.

A. Repeat the question, please?

Q. (By Mr. Cluck): Assuming that a pilot is proficient in instrument procedures, is an instrument takeoff a safe procedure?

(Testimony of Edward Crooks.)

A. I would say it would be as safe as a normal takeoff.

Q. You took an airplane off this field that same evening, did you not? A. Yes, sir.

Q. Approximately what time? A. 9:30.

Q. What was the condition of the runway surface at that [333] time?

Mr. Matthews: I object to the question, your Honor, as incompetent, irrelevant and immaterial, what the conditions were at 9:30.

Mr. Cluck: We submit on that that this is just a half hour before the accident in question, and there is no better judge of what the runway conditions were than a pilot who ran a plane down the runway. We can't get it the same instant the other aircraft ran down the runway, obviously, but we can get it as close as we can and then it is a matter of argument as to what weight if any is to be given to it.

The Court: It is part of the same subject involved in the questions objected to with the witness Wiley's rebuttal testimony.

Mr. Cluck: Does your Honor wish to reserve this matter?

The Court: Yes, I do.

Mr. Cluck: Would you wait a few minutes until the reporter has had a chance to check the Court's prior ruling?

Mr. Matthews: Could I ask just one question concerning the testimony as far as he has gone? Did I understand you to say that under scheduled

(Testimony of Edward Crooks.)

operations for the air line by which you are employed you are not permitted to make instrument takeoffs? [334]

The Witness: That is correct.

Mr. Matthews: And you hold what type of license?

The Witness: We hold what is now called an air line transport rating.

Mr. Matthews: Did you know Mr. Chavers?

The Witness: I never met him.

Mr. Matthews: Do you know what kind of a license he had?

The Witness: Only from spectators at the CAB hearing.

Mr. Matthews: Do you know the difference between a commercial license and a transport license such as you have?

The Witness: Well, there has been several changes since they were originally set up. The original setup, all air line pilots had to have a commercial license. We had ratings for the different airplanes we flew, but since the war it has been changed to air line transport rating.

Mr. Matthews: An air line transport rating is a higher type of license than commercial?

The Witness: It is the highest type there is, but you also have all commercial privileges.

Mr. Matthews: Is this rule about making an instrument takeoff which has been adopted by your company the same that has been adopted by the other companies?

(Testimony of Edward Crooks.)

The Witness: I wouldn't say it is the same. It is [335] a company regulation.

Mr. Matthews: Do the other air lines have the same regulation?

The Witness: I am not qualified to say.

Mr. Matthews: Have you ever worked for any other air lines?

The Witness: No, sir.

Mr. Matthews: But your company does not permit you to make an instrument takeoff?

The Witness: Not in scheduled operation.

Mr. Matthews: By scheduled operation, you mean in the carrying of passengers?

The Witness: Yes, sir.

Mr. Matthews: Instrument takeoffs are made only for the purpose of training?

The Witness: As a measure of your proficiency, each six months.

Mr. Matthews: And it is never allowed when you are carrying passengers?

The Witness: No, sir.

Mr. Matthews: That is all.

Mr. Cluck: If the Court please, I was checking over other witnesses, and I am afraid we run into that same point that we did in the case of this last preceding one, so that if it is convenient for the Court, it seems to [336] me we might have the reporter check that now.

The Court: Is there any objection to doing that now? We will be at recess for ten minutes, and I

wish the reporter to bring with her notes concerning Mr. Wiley's testimony.

(Recess.)

(Proceedings read by reporter as follows:)

"Q. Mr. Wiley, what other transport aircraft, if any, took off from Boeing Field within a period of approximately half an hour prior to the accident in question?

"Mr. Matthews: Objected to as incompetent, irrelevant and immaterial to any of the issues in this case.

"The Court: Will you state the purpose of the question?

"Mr. Cluck: Yes, if your Honor please. The matter upon which defendants rely principally as a basis of voiding liability on their policy are conditions of takeoff at Boeing Field. Testimony has been introduced by the defendants as a part of their direct examination relating to weather minimums, including visibility, particularly frost or icing conditions, and so on. We expect to show by this witness very briefly that during the period covered by such direct examination several scheduled and non-scheduled transport aircraft took off from this same runway, at the north end of it, and it seems to us that is a part of the evidence going to show [337] the actual flight conditions on that runway. The presumption would be that aircraft, particularly scheduled air line aircraft, would be observing the law or otherwise would be conforming with safety standards, and it is just a part of

the evidence which the Court can hear and evaluate for what it thinks it is worth after hearing the whole case.

“Mr. Matthews: If the Court please, that would require us to go into the condition of the weather at the time these other airplanes took off. It has already been testified to that weather conditions were extremely variable; that one moment visibility would be one thing, the next minute visibility would be something else. The fact that some other transport pilot did or did not abide by the rules and regulations of CAA doesn’t mean a thing. Some other non-scheduled carrier might have also violated these rules. It seems to me we should confine our inquiry here to the conditions of this airplane at the time it took off, the conditions of weather and visibility at the time this airplane took off, not as to conditions at other times when other airplanes took off.

“The Court: The Court believes that the conditions of flight as affecting safety of takeoff of the plane in question at or about the time it attempted to take off are material, and as to whether or not some particular [338] is more remote than some particular testified to surrounding and affecting the attempted takeoff of the plane in question, that is a matter of weight rather than admissibility, and the Court overrules the objection. Read the question.

“(Last question read by reporter as follows:

‘Q. Mr. Wiley, what other transport aircraft, if any, took off from Boeing Field within a

period of approximately half an hour prior to the accident in question?')

"A. According to my notes here——

"The Court: I do not believe you are authorized to read into the record your notes. You should answer the question if you can.

"Q. You may refresh your recollection, if I may interpose.

"Mr. Matthews: Your Honor, the notes he has is testimony before the CAB, and counsel objected successfully to my even letting the weather woman refresh her recollection. I think under the circumstances, if we are going to apply the same rule, it should be applied to this witness. That is the testimony you gave, wasn't it, that you prepared and gave before the CAA?

"The Witness: Yes, sir.

"Mr. Cluck: If the Court please, the notes that I am referring to were those taken as a regular part of the procedure, irrespective of CAB hearings. The witness [339] testified yesterday that a recording is kept showing the data with reference to takeoff reports on the departures, and he has other data in the tower, and I am asking him not to testify on the basis of what his notes say, but on the basis of what his recollection is, using notes simply as the basis of refreshing his recollection.

"The Court: There is a lack of clarification. The witness has answered a question by Mr. Matthews that the notes to which he actually refers in response to inquiring counsel's advising him

that he may refer to something, is the testimony that he gave before the CAB or CAA. In view of that record, I say that the objection is well taken and is sustained. It does not prevent his referring to official notes. The Court's ruling does not relate to possible notes made by this witness in the course of his work at the time the work was done by this witness.

“Mr. Cluck: In deference to the Court's ruling, we will defer further questions of this witness until we have had an opportunity of checking further on the notes. No further questions.

“Mr. Matthews: No questions.

“The Court: The witness is excused from the stand. Does either side ask to reserve the right to recall the witness?

“Mr. Cluck: Yes, we do, your Honor.

“The Court: The witness will remain in attendance until later excused.” [339-A]

The Court: Nothing about rebuttal was said.

Mr. Cluck: I realize that, and it may be, in my assumption, when we talked of recalling the witness, that it would be our own recalling. As I suggested, we are perfectly willing, if counsel prefers, to have them reopen their direct examination so that we may complete it on cross-examination, either way, but the substance of it, we submit, was that we were to have the right to resume questioning and that the principal objection—namely, that the safety conditions, or, rather, the runway conditions and conditions otherwise as observed in

connection with other aircraft departing shortly prior to the accident, was admissible.

Mr. Matthews: Your Honor, it puts us at a disadvantage to re-open our case at this time, after we have excused our witnesses. We are working against a time limit to conclude this case, and I do not believe this is the proper time for counsel—if he wanted to recall the witness, he should have done it at the proper time.

Mr. Cluck: We suggest respectfully that that factor could be removed by the Court's permitting you to examine the witness further in whatever way is reasonable; and as for time, we intend only to take, say, half an hour on all of our remaining witnesses, if matters can just be moved along. [340]

The Court: If you had at the next recess, or asked the opportunity between the calling of witnesses to examine the notes that the witness referred to at the time, at that moment you could have decided whether or not you wished to proceed further to inquire of the witness, and then if that had been done, it might not have involved the defendants in possibly recalling other witnesses who have since been excused. I am certain of one thing, and that is that this subject should not be gone into without the opportunity afforded to the defendants to recall any witness that they previously excused for the purpose of inquiring from him concerning these facts about which you propose to inquire here. If those witnesses are out of reach, it is obviously placing the defendants in an unfair position.

Mr. Cluck: Your Honor, it is perfectly agreeable with us that they recall anyone.

The Court: Suppose there are some of them, it turns out, that they cannot recall. Since the witness has been expressly excused by the Court, he may have placed himself beyond the reach of a telephone call, and it is now 3:15 in the afternoon, and it certainly offers some practical disadvantages. I do not believe what was contemplated at the time was saving this question for rebuttal. [341]

Mr. Cluck: Is there any showing made, your Honor, that there would be any witnesses that could not be made available?

The Court: No, there is not, but I am asking about that and I ask Mr. Matthews to respond as to whether or not there is any witness that is unavailable now on this subject that would have been available if this matter had been disposed of at the time.

Mr. Matthews: All the witnesses we had that were at the field at the time this plane took off at this particular hour have been excused, and none of the witnesses that are here now—in fact, the only witness that we have not excused and have asked to remain here is Mr. Greenley, who was not here at that time, so far as I know.

The Court: I am sorry Mr. Cluck may have put a mistaken construction upon the situation, but at the same time, from the standpoint of the other side, it is easily prejudicial. I think the Court ought to sustain this objection, and that is the order, in

view of the circumstances, particularly the way it arose.

If the witness Wiley had been recalled within a few minutes, as soon as an opportunity could have been had to look at those notes, that is, as soon as an opportunity could have been extended to Mr. Cluck to look at those [342] notes and consider the matter further, then there could be no prejudice resulting to the defendants except insofar as there was a possible error in the Court's view that it was proper cross-examination.

Mr. Cluck: If the Court please, I rather think there is a further reference to this same point in connection with one of the other witnesses, which we will check with the court reporter at the first opportunity when the session is over, but apart from that, we would like to make an offer of proof very briefly for the record.

The Court: You may do that.

Mr. Cluck: We offer to prove by the witness Robert Wiley that during the period of one-half hour immediately preceding the accident in question, several scheduled and non-scheduled passenger aircraft took off from the north end of the runway at Boeing Field under conditions of safe operation.

We offer to prove by the witness Crooks that about 9:35 he, as a captain on one of the United Air Lines' planes, took off from the north end of the runway at Boeing Field; that the runway surface at that time was not unusually icy; that he could apply brakes on the plane even while the motor was being run up prior to take-off without

substantial slipping or skidding; that he could see the lights along both sides of the runway [343] clearly on down either to the end or substantially to the end of the runway; that he made a contact take-off, not an instrument take-off, and that the take-off was made without any unusual difficulty and with complete safety. We offer to corroborate that evidence by the co-pilot, Mr. Popham.

We offer to prove by the witness Strobel that as captain on an Air Transport Command aircraft, just a few minutes after the United flight I mentioned, that he took off from the north end of the same runway and found substantially the same conditions as were summarized and observed by Mr. Crooks.

Mr. Matthews: That is objected to for all the reasons heretofore stated, your Honor.

The Court: I think for the record you should state them more specifically at this time.

Mr. Matthews: That is objected to for the reason that it isn't proper rebuttal. We did not, in our case in chief, inquire into the take-off of any other airplanes that took off 35 or 40 minutes before this airplane did. Proof of weather conditions, what could be seen or what could not be seen 35 or 40 minutes before this plane took off are incompetent and immaterial and of no probative value in proving what the visibility was when this plane took off at 10:05 or 10:07 that evening. [344]

Furthermore, that with the permission of the Court we have excused from this hearing all of the witnesses that we have subpoenaed to be here that

we might possibly use to describe what conditions were at 30 or 40 minutes before this plane took off. I believe that is all.

Mr. Cluck: I have a supplemental offer of proof, your Honor, that I would like to add. We offer further to prove by the witness Robert Wiley that immediately prior to the take-off of the aircraft involved in this accident, that he was in the tower and while in charge of giving clearance for take-off to this and other aircraft, he was in direct communication with Chavers as the pilot of the aircraft involved in the suit, that substantially the following occurred in respect of the clearance for take-off.

Mr. Matthews: If the Court please, I believe this is on an entirely different subject.

The Court: Was this gone into with the witness Wiley before? Was there any objection made on the ground it was hearsay?

Mr. Matthews: Yes, it was objected to on the ground that it was hearsay.

The Court: The Court should hear the offer, however, and will do so at this time.

Mr. Cluck: That substantially the following occurred, [345] which Mr. Wiley is prepared to testify from his own notes without reference to the CAB hearing: that after the tower, that is, after Mr. Wiley had informed him, Chavers, that he, Chavers would be advised of any change of visibility, the pilot acknowledged that statement and said in substance that he, Chavers, could see the green range lights at the other end of the runway, mean-

ing the opposite or south end of the runway approximately five thousand or more feet away.

Mr. Matthews: Are you reading?

Mr. Cluck: No. I am making an offer of proof. After which Mr.—

Mr. Matthews: Mr. Cluck, are you not now reading from a transcript of testimony that was made up partly from a record and partly from what the pilots could recollect, which was offered in evidence at the CAB hearing, and is a part of this record that I hold in my hand which you have consistently objected to my using? Is that not what you are reading from now?

Mr. Cluck: Would you permit me to answer the question? The answer is in my statement of offer of proof I am not stating anything in anything that I am referring to. I am paraphrasing what occurred as we are prepared to prove through the witness Wiley from his own notes, independent of the CAA hearing. I submit what may be referred to [346] in connection with the preparation or presentation of the case in our own affair.

We offer to prove then that he, Wiley, in reply to that report concerning the range lights at the opposite end of the runway stated in effect that the visibility was improving; that he, Chavers, in reply reported to the tower that he, Chavers, could still see the green lights at the opposite, meaning the south end of the runway, and that he was going to take off; that the tower, in response to that, said in effect that he was cleared for take-off and that the pilot should report when he got on top.

Mr. Matthews: If the Court please, we object now, as we did when Mr. Wiley was on the stand before, to statements made by Mr. Wiley, hearsay statements of what he heard over the radio, which he believes statements made by Mr. Chavers, upon the grounds and for the reason that that would be hearsay and afford us no opportunity of cross-examination; that the offer is not timely made; does not give us an opportunity to rebut the offers of proof; that this whole matter was before the Court and was disposed of by the Court, the same record at that time being referred to, and the Court has already ruled upon the admissibility of this evidence.

Also, as to the portion thereof which refers to the [347] tower man giving a clearance to take off, it is not admissible or material to any issue in this cause because under the rules and regulations of the CAA the tower man only clears an airplane for other traffic on the field and does not clear the airplane for weather conditions, but the pilot, as far as weather conditions, takes off solely on his own responsibility and the tower man does not attempt to control his take-off, nor does he have any right or authority to do so under the CAA regulations; and I think also it is only fair, when counsel is referring to that statement, that he omitted the fact that the tower man as a part of that conversation, since I think he is indirectly trying to influence the Court with that record, the tower man told Mr. Chavers that the visibility was below minimums and if he took off he would be in viola-

tion, and I believe that the offer is not timely made and it is incompetent, irrelevant and immaterial to any issues in this case.

The Court: The objections are sustained.

JAMES A. COOK

called as a witness by and on behalf of plaintiffs, having been first duly sworn, was examined and testified as follows: [348]

Direct Examination

By Mr. Cluck:

Q. What is your full name?

A. James A. Cook.

Q. Where do you live now?

A. General Delivery, Dash Point, Washington.

Q. By whom were you employed about January 2, 1949?

A. I was employed by myself at Pasco, Washington, at that time.

Q. Did you have occasion to come over to Boeing Field at about the time of the accident that you have heard testimony about here?

A. Yes, sir.

Q. How did you happen to come over?

A. I was called shortly after the accident and asked to take the first available method of transportation and come to see if I could help out.

Q. Did you have occasion to examine the tracks made by this airplane as it went down the runway?

A. Yes, sir.

Q. Just describe briefly what they were.

Mr. Matthews: Your Honor, before the witness

(Testimony of James A. Cook.)

answers that question, may I ask a couple of questions to bring out the capacity in which he was acting?

The Court: Does it relate to the question [349] of admissibility of evidence?

Mr. Matthews: Yes, it does, your Honor.

The Court: It is difficult for me to see that offhand, but you may interrupt for the purpose of asking qualifying questions.

Mr. Matthews: Were you appointed and did you serve as part of a committee selected by the Civil Aeronautics Board consisting of Leon D. Cuddeback, Louis C. Muggee, William A. Glen, Lyle L. Lucklichtner and yourself for the purpose of investigating the tracks made by this airplane?

The Witness: Yes.

Mr. Matthews: Did you make a written report to the CAB in connection with this investigation of this accident which was signed by yourself and the other gentlemen mentioned?

The Witness: Yes.

Mr. Matthews: Is the knowledge that you have of the tracks—was it obtained by you as a part of your duties as a member of that committee?

The Witness: Yes.

Mr. Matthews: In connection with the investigation being carried on by the Civil Aeronautics Board?

The Witness: I was asked by a member of Seattle Air Charter to take part on that board as their representative. [350]

(Testimony of James A. Cook.)

Mr. Matthews: And the Civil Aeronautics Board wanted a representative of Seattle Air Charter on the board and you were selected?

The Witness: As far as I know, sir.

Mr. Cluck: I will ask a question or two, and then I would like an opportunity to answer the objection.

Q. (By Mr. Cluck): You were never employed by the CAA, were you? A. No, sir, never.

Q. When you spoke of investigation, you were speaking of a group that were examining the tracks, is that true? A. That is true.

Q. It was composed of whom?

A. Of Mr. Cuddeback of the Civil Aeronautics Administration, I believe there was Mr. Mugge, Mr. Glen, if I remember correctly, Mr. Lucklichtner of the Seattle Air Charter, and myself.

Q. You have never been connected officially with the Civil Aeronautics Board? A. Never.

Q. You were simply asked to go out and join this group in looking at those tracks?

A. Yes, sir.

Mr. Cluck: If your Honor please, counsel for defendants, among other witnesses, called Mr. [351] Cuddeback who testified to certain matters from his direct recollection, and even though some of them were included in the report, we didn't, as I recall, make objection as long as it was from his direct knowledge.

Mr. Strong, the instrument man, made a detailed examination of the wrecked airplane and he like-

(Testimony of James A. Cook.)

wise testified concerning that, and as long as he didn't cover matters set forth in the hearing, that is, as long as he offered statements as his own direct knowledge, that was permitted to be introduced.

In the case of this witness, all we are asking him to do is something that is called for in the interests of accuracy, if nothing else, and that is to say in substance, what he observed in connection with the tracks on the runway, and the man who is the best able to testify what they were is, of course, the man who carefully observed them immediately after the accident occurred.

Mr. Matthews: Your Honor, the testimony of Mr. Strong was offered, it is true, and no objection was made because counsel thought that there was some part of that testimony undoubtedly which was beneficial to him. The same thing was true of Mr. Cuddeback's testimony.

Our position on the CAB hearing is this, we are perfectly willing to have all of it go in, and we have tried to get it in, perfectly willing that all of the [352] evidence go in at the CAB hearing and findings, but counsel has—any part of that evidence which we thought was beneficial to us, counsel has successfully kept out, even to the point of prohibiting me from asking a witness if he didn't make a statement to a certain effect in connection with the investigation, a witness who wasn't a member of that committee, didn't occupy any official position of any kind, so that the mere fact

(Testimony of James A. Cook.)

that as to some of our offer counsel didn't object for reasons sufficient to himself, but we were prevented consistently from getting in any part of that hearing which was beneficial to us, and then to come along in rebuttal at this time and offer this testimony, it seems to me it is not admissible under what has been the consistent ruling of the Court.

Had counsel objected to the report of Mr. Strong, the Court would have excluded it, just like it excluded numerous other documents that were used in connection with the Civil Aeronautics Board hearing. Furthermore, again I say this is not the proper time to bring this up, in rebuttal.

Mr. Cluck: If the Court please, I certainly wish to correct counsel's statement of fact. If we go down the list of witnesses called by defendants in this case, it will be found that with very few exceptions every one [353] of them testified at the CAB hearing, every one of them except possibly two or three that I can recall offhand, and we did not object to their testimony as long as they stayed clear of what occurred at a hearing where we had no opportunity to cross-examine witnesses or even to have witnesses of our own. Their testimony, when it was submitted on the basis of their direct knowledge, was put in without objection on our part. I wish that understood, and if there is any disposition on the part of counsel to deny it, I will read one by one every one of those witnesses and prove with just two or three exceptions that has been

(Testimony of James A. Cook.)

the case. In this instance, we are, as we said, simply asking the witness from his direct knowledge what the tracks were. That is all, we are not referring to the hearing.

The Court: What have you to say against the objection that it is not proper rebuttal?

Mr. Cluck: Just this, your Honor, we keep in mind that the prima facie case that plaintiff made covered the matter, such matters as the policy having been in effect, premiums having been paid, what happened as far as the salvage of the aircraft is concerned, and other matters of that nature.

Counsel in his answer raised for the first time the issue of negligence and related points relied upon to [354] void liability on the policy, and up to this time those matters have been covered by their own witnesses and we have simply cross-examined them. Since 1 o'clock has been our first opportunity to call our own witnesses to cover the issues which were raised initially in the pleadings by way of affirmative defense, and then by way of their own testimony in part of their case in chief.

It is respectfully submitted that testimony with regard to such basic data as the tracks made by the airplane involved in the accident to the extent that they support our theory that there was no showing of negligence and relationship of alleged negligence and damage that that is directly pertinent. It is about as pertinent as any other evidence would be, because it is physical evidence. It is evidence that

(Testimony of James A. Cook.)

is used as a starting point on the part of anyone seeking to arrive at cause and effect.

Mr. Matthews: No inquiry was made concerning these tracks as a part of our case. Therefore, I submit it is not rebuttal, and the other three witnesses, Mr. Cuddeback, Mr. Mugge, Mr. Glen, who were on this committee have been excused by the Court as witnesses with the consent of counsel, and Mr. Lucklichtner, the last information I could get concerning him, he was down in Florida. I think certainly, having not been gone into [355] as a part of our case or as a part of plaintiffs' case, it is not proper rebuttal. It opens up a whole new field, a whole new theory which was not gone into in our case or theirs.

Mr. Cluck: In reply, briefly, we submit that having raised the issue of negligence, counsel cannot by limiting their direct examination automatically deprive us of all opportunity of submitting our view of what occurred. While he had his witnesses on in direct examination, our right of cross-examination covered only the matters which he covered, and several times he raised objection concerning the scope of our direct examination, and two or three times the objection was sustained on the ground that we were seeking to enlarge the scope of the subject matter which he had covered.

My recollection is that he submitted no witnesses who testified directly on the matter of the tracks made by the aircraft, and if we at that time sought to cross-examine he could have successfully raised

(Testimony of James A. Cook.)

the objection, so this is the first time we can inquire about it.

The Court: May I ask you, Mr. Cluck, on what theory do you contend that the evidence as to track marks of the plane which crashed will tend to negate the allegation and proof as to negligent operation of the airplane?

Mr. Cluck: In this respect, your Honor, the negligence [356] relied upon, alleged and to the extent there is anything offered in the way of proof at all, relates to the matter of icing and of overloading. There was some reference to visibility. The point that has been covered by expert witnesses, even those called by the defendant, has been to the effect that neither icing nor overloading even if it existed, would deprive a pilot of the directional control of the aircraft prior to its flight. In other words, even if the aircraft is overloaded or even if there is ice on the wings, still he could prevent it from going left off the runway.

This witness examined the tracks and we intend to show that at a distance of approximately 1100 feet from the north end of the runway the plane began to describe a curve of about 35 degrees until a point approximately 1800 feet from the end of the runway, when it first became airborne, and if that is correct, it means that nothing relating to either overloading or icing could possibly be pertinent to this matter, because it could not, by the defendants' witnesses' own admission, explain the cause of that aircraft starting the direction which

(Testimony of James A. Cook.)

finally led it to the crash. It is quite an important point and could be covered in very brief testimony.

The Court: Have you sufficiently stated your position, [357] Mr. Matthews?

Mr. Matthews: I think so, your Honor.

The Court: The ruling is that the objection is overruled upon condition that no written report made or signed by this witness, which became an integral part of the factual data reflected by the CAB report, may be inquired into of this witness.

Q. (By Mr. Cluck): Would you answer the question?

A. Briefly, those tracks started at the north end of the runway and continued for approximately 1050 feet in a direction straight down the runway. The tracks at that point disappeared and were again visible just short of 1800 feet down the runway, and when they appeared again they were in a slight curve to the left, a very gradual and continuous curve, and just before reaching the edge of the runway the tracks disappeared entirely, and I don't recall the exact distance that was measured there, somewhere approximately 15 or 18 feet off the runway, there was a mark that we were able to find where the left wing had started to drag.

Q. I am just asking you about the runway at the present time, Mr. Cook. In short, the plane left the runway on the left side, is that correct?

A. On the left side of the runway, yes, sir.

Q. Describing a curve of about how many degrees?

(Testimony of James A. Cook.)

A. The curve itself, I don't know how many degrees it [358] would be. The angle from the runway would be approximately 35 degrees.

Q. Had you flown this same plane involved in the accident? A. Yes.

Q. Where is the control of the automatic pilot located?

A. It is located behind the co-pilot on the right-hand side of the companionway, in other words, the entrance to the pilot's compartment. It would be just back of the co-pilot on the corner of the companionway.

Q. Did the plane become airborne after the wing dragged? A. Yes, sir.

Mr. Matthews: I object to that question; the witness was not present.

Q. Putting it another way, were there any markings at the end of the drag line you mentioned?

A. No. There was a distance of some, as I recall, 750 feet without any mark whatsoever.

The Court: After the drag mark?

The Witness: After the wing tip dragged, yes, sir.

The Court: About how many feet?

The Witness: As I recall, about 750 feet.

The Court: What did you say about that distance?

The Witness: There was no mark whatsoever.

Q. (By Mr. Cluck): In connection with the automatic pilot, could you describe in a word what the procedure is on that [359] prior to take-off?

A. That would vary. In some cases, pilots check

(Testimony of James A. Cook.)

the auto pilot through before take-off and then turn it off afterwards. This is not always done, however.

Q. Can you speak a little louder?

A. In some cases, the auto pilot is checked through before take-off, but this is not always true.

Q. What is the heading to Ellensburg?

A. I would say approximately 90 degrees from Boeing Field.

Q. If you were flying it? A. Yes, sir.

The Court: How did you fix the 90 degrees, with reference to what? We are not all fliers.

The Witness: That would be the compass heading, sir.

The Court: You may proceed.

Cross-Examination

By Mr. Matthews:

Q. Did you come over here especially for this trial from your home, or are you living here now?

A. I am living in Tacoma now.

Q. Since you served on this committee, have you had any occasion to refer to the report which was made concerning these tracks and the distances and the measurements? A. None whatsoever, sir.

Q. Can you recall any other tracks that were made [360] or the distance of them besides the ones you have told us about?

A. The tracks further took up at the end of this space I mentioned. As I recall, there was about 750 feet, then there was a touchdown mark of what we took to be the tail wheel.

(Testimony of James A. Cook.)

Q. I just asked you if you could recall any other tracks? A. Yes.

Q. Have you been shown a copy of this report since you came over here? A. No, sir.

Q. You have not looked at it?

A. I have seen no report since I came over here.

Q. Have you looked at a map?

A. Yes, sir.

Q. Is it your testimony, sir, that after all this lapse of time you can carry in your memory and in your own mind and in your own independent recollection all of these distances and angles of curvature that you have described here?

A. I refreshed my memory with the map. However, I differed with some of the distances on it, as I recalled them, and I used the distances I remembered myself rather than those on the map.

Q. Did you make any notes that you kept in your possession? A. No, sir. [361]

Q. Has your testimony been refreshed to some extent by an examination of the map and your discussions with Mr. Cluck concerning this report?

A. The examination of the map, yes, sir.

Q. Do you think that independently of that examination, your discussions with Mr. Cluck, you could have given this testimony you have given here today?

A. I think I could just about have drawn that map without even looking at it.

Q. You said that you saw some tracks that

(Testimony of James A. Cook.)

started 1050 feet from the north end of the runway, is that right?

A. No, sir. I said that the tracks that were determined to be those of 79025 started at the beginning of the runway take-off and of the runway and continued approximately 1050 feet down the runway.

Q. Could you see those tracks?

A. Yes, those tracks were definite.

Q. From the north end of the runway down to 1050 feet?

A. We stepped it off. It was roughly 1050 feet.

Q. I do not want to confuse you. It is your testimony you could follow the tracks from the north end of the runway south 1050 feet?

A. The way we determined those tracks was by backtracking.

Q. I am not asking you how you determined it. I am asking you if you could find any tracks from the north end [362] of the runway down to a point on the runway 1050 feet from the north end?

A. The tracks were evident for that entire distance, yes.

Q. If I would tell you that that is contrary to the statement of everybody else that is on the committee that served with you, would you still say that is true?

A. As I recall it, sir. That has been a long time, but as I recall it we could see those tracks.

Q. If I would say to you that every other member of that committee who signed the statement said

(Testimony of James A. Cook.)

there were no tracks that could be identified or visible from the north end of the runway down to a point 1050 feet, you still claim there were?

Mr. Houghton: Your Honor, I object to that question. This witness does not have to square his testimony with somebody Mr. Matthews may compare it with. It is improper cross-examination, an improper question.

The Court: I do not think it is proper to ask one witness those beliefs. If this data you mentioned was already testified, I do not think you could ask him whether or not it is true, and that is about what you are doing. I think the objection should be sustained. Also, I am not so sure it does not refer to a record. You speak of a record which may be part of the report.

Mr. Matthews: I do not want to circumvent the Court's ruling, but at this time I would like to ask permission [363] to impeach this witness by calling his attention to a signed statement which——

The Court: Which he made?

Mr. Matthews: Which is directly contrary to the evidence he has given.

The Court: If the statement was signed by him, the request will be considered. If the statement is signed by someone else——

Mr. Matthews: It is signed by him.

The Court: Is there any objection to showing him a statement signed by him for the purpose of impeachment?

Mr. Cluck: Your Honor, we have no desire to

(Testimony of James A. Cook.)

have anything but admissible facts on this matter, and in the interests of doing so, I respectfully request a recess of five minutes to confer with counsel immediately on this matter.

Mr. Matthews: I think we should conclude with this witness. This is a very critical point in the testimony.

The Court: Let each counsel consult with each other as to what that document is.

Mr. Cluck: I have not seen the statement or anything else you intend to use by way of impeachment.

The Court: Let opposing counsel see the signature you intend to show him. The Court will indulge an interruption for that purpose, Mr. [364] Matthews.

Mr. Cluck: If the Court please, sometimes candor is one way of disposing of a problem, even though it may not fall strictly within some rule. We frankly believe that there is——

Mr. Matthews: May I make a suggestion? If you are going to now state to the witness what is in this report, I think he should be excused from the room.

Mr. Cluck: No, I shall not. We frankly believe the witness has made a mistake in testifying on this matter, and we state in complete frankness that we are willing that the testimony be stricken on this subject of tracks, and we shall then if the witness is available offer to establish the tracks by one of the other men who observed them.

(Testimony of James A. Cook.)

The Court: Have you any objection to striking the testimony?

Mr. Matthews: No objection, your Honor.

The Court: All of the testimony of this witness relating to the tracks of the airplane in question is stricken and the Court will disregard it. This is done at the request of plaintiffs' counsel.

Mr. Cluck: May we have five minutes, your Honor? I want to see if another witness is available.

The Court: Will you let me know if there is any further interrogation desired of this witness? He is [365] just excused from the stand. You may be excused. We will take a five minute recess.

(Recess.)

Mr. Cluck: If the Court please, we have this problem. I am going to tell the Court what it is and then make a suggestion which I think is reasonable. Earlier this afternoon we had Mr. Mugge here, who was one of the men that examined these tracks for the CAB. We asked him what the tracks were, and objection was made by the defendants on the ground that that covered matter referred to in the reports of the CAB.

Since then the matter has been gone into in connection with other witnesses, and as I understand it, the Court's ruling is that if a witness, even a witness connected with the CAA, answers a question on the basis of his independent personal recollection without any reference whatsoever to any matter

contained in a CAB report or any data he supplied any report he may have made to the CAB, that he may do so.

After that witness was here, we excused him because we thought Mr. Cook knew the tracks. We did not have the opportunity to confer about it with him because we had supposed Mr. Cook would be the witness to testify on that. Now that Mr. Cook recalls, as we believe, incorrectly what they were, we suggest this procedure: we have [366] only one witness left, Mr. Culliton, to give very brief testimony on another point that will take until, roughly, 4:20. We have had in mind from the beginning, with long briefs here that are about to be served on our part, and I am sure on the part of defendants, that if both sides exchange them and file them with the Court, we could then present argument tomorrow morning. That was part of the original schedule. If we were permitted to recall Mr. Mugge for the brief testimony only on the matter of what these tracks actually were, we think it would take ten minutes at most and not disrupt the schedule to any greater extent than that.

The Court: Who has been familiar with the places and methods of getting in touch with Mr. Mugge?

Mr. Cluck: He is down at the field, your Honor, and it would be a matter simply of telephoning him and asking him to come up. He could be here in half an hour but I am afraid it would be that long with the traffic.

The Court: Let someone connected with the case try to contact Mr. Mugge and come back with a report. The Court is making no promise to hear any testimony tomorrow morning. It has been my intention to work at this trial until testimony is completed, and I wish whoever can do this would try to get those witnesses here this afternoon. If they can get here in half an hour, the Court will wait [367] until they get here.

Mr Cluck: Mr. Houghton is checking on it.

ROBERT CULLITON

called as a witness by and on behalf of plaintiffs, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck:

Q. Would you give us your full name?

A. Robert J. Culliton.

Q. Where do you live?

A. In Bellevue, Washington.

Q. What is your business?

A. I am an insurance broker.

Q. With what firm are you connected?

A. With Culliton & McDonald, Inc.

Q. Here in this city? A. In Seattle.

The Court: How do you spell McDonald?

The Witness: M-c-D-o-n-a-l-d.

Q. You had dealings with Mr. Leland in connection with the policy that is the subject matter of this suit? A. I did.

(Testimony of Robert Culliton.)

Q. State whether or not Mr. Leland informed you concerning [368] his application for an extension of time from the CAA within which to comply with a special regulation relating to installation of fire-resistant material in the aircraft?

Mr. Matthews: Objected to upon the ground and for the reason that this witness has stated that he is a broker, and therefore under the law of this state he is an agent of the insured and not an agent of Lloyd's of London, and I am sure I can develop that more fully if the Court would permit me to ask him one or two questions about his relationship.

The Court: The Court will need your development of the law before we finish consideration of the subject. Mr. Cluck, have you any objection to this inquiry by Mr. Matthews?

Mr. Cluck: I might ask one or two more questions, your Honor. This is the same subject matter covered by Mr. Sweet this morning.

Q. (By Mr. Cluck): Have you had arrangements with D. K. MacDonald & Company in this city with respect to servicing of a policy held by Mr. Leland on the aircraft that is the subject matter of this accident?

A. Mr. Cluck, I don't have any arrangements with D. K. MacDonald & Company. I buy insurance through D. K. MacDonald & Company.

Q. Put it another way, what was the practice—was there [369] an established practice with respect to the insured taking up with you information or

(Testimony of Robert Culliton.)

problems which were to be cleared either with you or with D. K. MacDonald & Company after the policy was purchased?

A. Mr. Chuck, the relationship is as follows: I am the broker. I buy the insurance in London through D. K. MacDonald & Company, who are surplus line brokers. Mr. Leland would do all of his insurance business with me, not with D. K. MacDonald & Company. Does that answer your question?

Q. Partly. After the policy is purchased, it has been frequently the case that clearances of one kind or another had to be secured by the insured under it, is that true?

Mr. Matthews: Objected to as leading and suggestive.

The Witness: Yes, changes take place.

The Court: The objection is overruled.

Q. What has been the practice—what was the practice in that respect prior to this accident?

A. If there was any change necessary in the coverage on the aircraft, Mr. Leland would discuss it with me and ask me or direct me to make those changes. I in turn, after the changes were decided upon, would go to D. K. MacDonald & Company and ask them to make the changes.

Q. Did D. K. MacDonald & Company have any direct relationship with the insured with respect to such changes, or did they utilize your services as intermediary? [370]

A. D. K. MacDonald & Company had no direct connection with the assured.

(Testimony of Robert Culliton.)

Q. The assured would always take up such matters with you? A. Yes, sir.

Q. And that had been the established practice for how long?

A. I believe that has always been the established practice with what we call Lloyd's open market placements.

Q. Is that the case with all the assured here in this area? A. As far as I know, it is.

Q. And such matters then are cleared usually by telephone?

A. Generally telephone or by word of mouth, whichever is most convenient.

Q. Did Mr. Leland take up with you the matter of his having secured a time extension for complying with a special regulation relating to fire-resistant material?

Mr. Matthews: Same objection, on the ground the policy provides that there will be written consent from D. K. MacDonald & Company.

Mr. Cluck: This was gone into at the time Mr. Sweet was on the stand this morning. It will be recalled counsel called him in connection with matters relating to handling of this policy by D. K. MacDonald & Company, and that upon cross-examination Mr. Sweet testified to [371] this in substance: He said after a policy was once sold to an insured, that D. K. MacDonald & Company utilized the services of Culliton & McDonald, with which the witness now on the stand is connected, that the assured would always take up through

(Testimony of Robert Culliton.)

Culliton & McDonald any problem and clear with respect of furnishing any required information, and that D. K. MacDonald & Company had that as a settled practice, both with the assured and with Lloyd's, and that that was invariably, or that that was the regular practice followed with all assured.

The purpose of this question is simply to show that Mr. Leland followed that established practice in connection with clearance on this particular matter. We realize, and counsel, of course, is correct in stating that there is a statement in the policy to the effect that there should be a written notice, but we submit, and I doubt that counsel will deny, that the law is quite well settled that where there is the required business relationship between the parties, that oral notice given to one properly authorized with knowledge on the part of the insurer complies substantially enough with the requirements of the policy and is uniformly taken as compliance in respect of any contention that liability should be voided under it.

The Court: Is there anything else to be [372] said?

Mr. Matthews: I think not, your Honor.

The Court: Where is the clause in question in the policy which speaks of the requirement of written consent?

The Witness: Your Honor, can I show it to you?

The Court: The witness says he knows where it is.

Mr Cluck: Paragraph 1(c), your Honor, under

(Testimony of Robert Culliton.)

general exclusions, reading as follows: "This Certificate and/or Policy does not cover:"—skipping down to 1(c)—"The use of the Aircraft for closed course racing, or student instruction unless such use is specifically approved in the Schedule, or any flying in which a waiver issued by the Civil Aeronautics Authority is required unless with the express written consent of D. K. MacDonald & Company for Underwriters."

It will be recalled we contend this provision is inapplicable for other reasons, but it is pertinent to the issue raised, while written notice might have been given, that oral notice was.

The Court: I am going to hear the testimony, and that does not keep the Court from considering the contentions of each side after the testimony is in as to whether or not it may be evidence in contradiction of that term for some reason considered by the Court as accomplishing a fact inconsistent with the one there stipulated a fact or a result inconsistent with the one [373] there stipulated. That is a matter for the Court to determine as a matter of law, it seems to me, later. The objection is overruled.

Q. (By Mr. Cluck): Will you state what Mr. Leland said or did, Mr. Culliton, in connection with notifying you concerning the extension of time for compliance with that special regulation?

Mr. Matthews: Same objection.

The Court: Overruled.

(Testimony of Robert Culliton.)

A. Mr. Leland mentioned to me that it was necessary for him to make some structural changes, I am not familiar with exactly what they were, something to do with the fire wall in his aircraft. Those came up not in the usual manner. I was simply discussing general things with Mr. Leland when it came up. I have no knowledge of the technical order at all, except I was familiar with the fact that there was some structural change necessary in the aircraft, and that Mr. Leland had an extension of time in which to accomplish this.

The Court: I do not understand the witness' testimony. I do not understand whether he is stating as to what his understanding was or what Mr. Leland said or what it is he has just related. You may inquire further.

Q. Mr. Leland mentioned to you, as I understood you to testify, that he was getting a time extension from the CAA in order to comply with some order relating to installation [374] of fire-resistant materials? A. Yes, sir.

Mr. Matthews: I think that is very leading and suggestive. He said before a fire wall. I do not think you should lead the witness.

The Court: The objection is sustained. Find out from the witness what was said.

Q. State in your own words what was said by Mr. Leland as far as you know it.

A. In the first place, the question came up not because of any insurance question, but simply I happened to be talking about money. Mr. Leland

(Testimony of Robert Culliton.)

mentioned that these changes were necessary, that they would cost some money, and that he had an extension of time in which to complete the necessary changes.

Q. What was the general nature of the changes that he was referring to?

A. He mentioned insulating material changes of some sort. I didn't go into it with him technically at all.

Q. Relating to fire? A. Yes, I think so.

Q. He did refer to——

Mr. Matthews: Don't lead him.

The Court: Ask him.

Q. What did he say with reference to the CAA regulation?

A. It was my understanding that all—— [375]

Mr. Matthews: Just what did he say.

The Witness: He said all planes of this type, this DC-3, had to make these changes within a certain length of time and that he was planning to make the changes and that he had an extension of that time.

Q. From whom?

A. From the authorities. I don't know whether he said CAA or CAB, but from the necessary authorities.

Q. Approximately what time did you have this conversation with him?

A. I wouldn't even attempt to say at what date this conversation took place. I saw Mr. Leland, of

(Testimony of Robert Culliton.)

course, three or four times a week for two years preceding this crash.

Q. Approximately how long was it before his death, as far as you can recall?

A. I would much rather not pin it down to any definite time, because it could have been six months and it could have been a month.

Q. We are not attempting to pin it down to any special day, but using the date of the death as a time——

Mr. Matthews: Don't suggest a date to him, counsel.

Q. From the date of death, can you estimate the approximate time when the matter was brought up?

A. I would much rather not, Mr. Cluck. I do not know at all. I can't give you any definite date. I don't [376] connect it with anything because I didn't at the time.

Q. Was it any less than a month prior to the date of his death?

Mr. Matthews: The witness has answered he doesn't know.

Mr. Cluck: He said it might have been a month to six months. I am trying to make it clear it was within that period.

The Witness: I would like to be able to give you an exact date, but, as I say, I contacted Mr. Leland many, many times for two years prior to this, and I really can't say when it was I talked to him about it.

Mr. Cluck: That is all.

(Testimony of Robert Culliton.)

Cross-Examination

By Mr. Matthews:

Q. Are you an agent of the underwriters of Lloyd's of London? A. No, sir.

Q. Have you ever been? A. No, sir.

Q. Are you an agent of the Eagle Star Insurance Company, Ltd., or the Orion Insurance Company, Ltd., or the Drake Insurance Company, Ltd.?

A. No, sir.

Q. Have you ever been given any authority by any of [377] those companies to change any of the terms or conditions of the policies which were issued by any of them? A. No, sir.

Q. In any of your dealings with D. K. MacDonald & Company have they ever authorized you to make any changes in the terms and conditions of any policy which you may have bought through them and your customers? A. No, sir.

Q. State whether or not it was necessary for you, if there was to be a change made in the terms of the coverage, to obtain that consent from D. K. MacDonald & Company in the same manner which the assured would have to obtain it if he wanted such a change?

A. I am not positive of your question there. Would you restate it, please?

Q. If you desired some change in the coverage, would it be necessary for you to advise D. K. MacDonald & Company what the required change was?

A. Yes.

(Testimony of Robert Culliton.)

Q. Then what would happen?

A. Then it was my understanding that D. K. MacDonald & Company would communicate with Lloyd's of London and ask for any changes that were necessary, and in turn confirm or reject as the case might be those changes.

Q. Did you ever represent to Mr. Leland that you were [378] an agent of D. K. MacDonald & Company or an agent of any of these defendant insurance companies I have mentioned?

A. No, I never represented that.

Q. Do you think he fully understood what the relationship was between you and D. K. MacDonald & Company such as you have explained here today?

A. I am positive he did.

Mr. Matthews: That is all.

Mr. Houghton: Your Honor, I might report I have talked with Mr. Mugge on the telephone and told him you suggested you would like to have him down here as soon as possible. He said he would start right down and try to make it.

The Court: The Court will be at recess, if that is needed at this time, in order to accommodate that witness. In the meantime, before calling a recess, is there anything else counsel or any one of the witnesses——

Mr. Wilkerson: I have a brief supplemental memorandum on one subject which may be considered by the Court. I will serve it on counsel.

Mr. Houghton: We also have a brief. I might say, your Honor, in this brief you will find a couple

of little changes made with a pen since I have been here. It was delivered to me and I found a couple of corrections that needed to be made. I beg your pardon for making them in [379] that way.

The Court: That is agreeable.

Mr. Matthews: Your Honor, there is only one matter that I would like to take up with the Court at the first convenience in connection with the offer of proof that was made by Mr. Cluck concerning the take-off of the non-scheduled carrier which took off some thirty minutes before the airplane which is the subject matter of this litigation. I would offer to prove, if that evidence was admitted, that the pilot of that plane was charged with a violation of the CAA regulations and paid a fine of \$300 for taking off from the airport under weather conditions where take-off was not permissible.

The Court: The Court sustained the objection to the offer of proof, did it not?

Mr. Cluck: Yes, the Court did, your Honor. That statement invites a reply. I will refrain from making it except to say that the pilot we offered, to reply to that by showing that the pilot paid it as a settlement simply because he did not have witnesses to show that the weather was as he found it, and solely for that reason.

Your Honor, Mr. Strong is here now. That will be our only witness before Mr. Mugge comes.

The Court: The witness Strong has been recalled. He has previously been sworn. He may now be interrogated. [380]

LAWRENCE STRONG

called as a witness by and on behalf of plaintiffs, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck:

Q. Give your full name again just for the record. A. Lawrence J. Strong.

Q. If the automatic pilot in an airplane is operating, when does it take effect during the course of the take-off run?

A. If it is operating in the on position——

Mr. Matthews: Objected to as improper rebuttal. This witness was on the stand and all this was gone into.

Mr. Cluck: On that, your Honor, I think the answer is that this is a matter that could be gone into on cross-examination in part, but certainly more appropriately on rebuttal, because it relates to the same matters we have covered by other witnesses, namely, the possible alternative causes of the accident and the actual mechanics of the aircraft related to it.

The Court: How many more witnesses are you likely to have that will raise the question of whether it is proper rebuttal?

Mr. Cluck: This is the only one.

The Court: Read the question. [381]

(Last question read by reporter.)

The Court: The objection is overruled. You may answer.

(Testimony of Lawrence Strong.)

A. It would take effect as soon as the aircraft reached a speed that would allow the tail surfaces to start correcting.

Q. Just say in a word why that is so.

A. When the aircraft is moving at a slow speed, there is very little control, and as it gains speed, the control surfaces become more sensitive and have more effect.

Q. Do you know the approximate distance down the runway when that effective control takes place?

A. It would be strictly dependent upon speed and headwind.

Q. Assuming the automatic pilot operating, it directs the course of the plane right and left in conformity with directional settings, is that true?

A. Right.

Q. What course it would take with reference to the runway would depend upon what that setting was? A. Right.

Q. Previously you had spoken of two instruments having the same setting, the auto gyro and the auto pilot and the directional gyro. What is the probability, just as a matter of chance, of those two settings being the same?

Mr. Matthews: Objected to as no qualification shown by this witness, improper rebuttal, and a matter that was [382] inquired into. The witness was before the Court and counsel had an opportunity to examine him on these matters, and he should not go into a new field, a new subject, as

(Testimony of Lawrence Strong.)

the very last witness at the very conclusion of the case.

The Court: Read the question.

(Last question read by reporter.)

Mr. Matthews: The witness' answer calls for speculation.

Mr. Cluck: If he knows.

The Court: The objection is overruled, with that condition.

A. May I have the question again, please?

(Last question read by reporter.)

A. The probability would be very remote.

Mr. Cluck: That is all. Call Mr. Mugge.

The Court: Mr. Mugge has been previously sworn. He may now take the stand.

LOUIS MUGGE

recalled as a witness by and on behalf of plaintiffs, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Cluck: [383]

Q. The questions which I am about to ask you I would like to have you answer from your direct personal knowledge without referring to anything in any other proceeding or hearing. You examined, I think you testified, the tracks made by the aircraft involved in this accident, did you not?

A. That's right.

(Testimony of Louis Mugge.)

Q. Would you tell the Court briefly what tracks you observed on the runway made by this aircraft?

Mr. Matthews: May I ask one or two qualifying questions going to the admissibility of this witness' testimony?

The Court: Have you asked all the qualifying questions you wish to, Mr. Cluck?

Mr. Cluck: Yes, I had previously asked them, your Honor. If there is any new point the Court indicates it wishes us to go into, we shall.

The Court: You may inquire, Mr. Matthews.

Mr. Matthews: Were you a member of the committee designated by the CAB to investigate the tracks that were made by this airplane?

The Witness: I was a member of a joint committee made up of members of the Civil Aeronautics Board and the Civil Aeronautics Administration to investigate the accident.

Mr. Matthews: Were Mr. Leon D. Cuddeback, Mr. Glen, [384] Mr. Cook, and Mr. Lyle Lucklichtner also on that committee with you?

The Witness: Yes, sir, that's right.

Mr. Matthews: Did you make a formal report to the CAB of your findings, which you signed?

The Witness: Yes, we did.

Mr. Matthews: Was that report read to you yesterday here at the courthouse?

The Witness: Not in its entirety, no.

Mr. Matthews: Was part of it read to you?

The Witness: Yes.

Mr. Matthews: Was the purpose of reading that

(Testimony of Louis Mugge.)

to you to refresh your recollection as to the distances?

The Witness: That's right. I assisted Mr. Moore in drawing a map of the field and there seemed to be some confusion as to the figures.

Mr. Matthews: Would you have an independent recollection after the lapse of some year and a half of the various distances and angles and curvatures without reference to that report?

The Witness: I think fairly accurately; there may be some error. As far as general figures are concerned, I think I remember them.

Mr. Matthews: That is all.

Q. (By Mr. Cluck): Will you briefly describe the tracks [385] as you observed them on the runway?

A. Yes. As I recall, the tracks were picked up from the end of the runway to a point about 1,000 feet down the runway in a comparatively straight line. From that point, they assumed a gentle curve towards the east side of the runway, or the lefthand side, leaving the runway at a point, if I remember right, about 1,800 feet from the end of the runway.

Q. Without reference to detail, Mr. Mugge, the tracks described a gentle curve, did they, to the left of the runway, is that correct?

A. Will you say that again?

Q. I say without going into a lot of detail, the tracks, did they describe a curve to the left prior to leaving the runway? A. That is right.

(Testimony of Louis Mugge.)

Q. Do you recall the approximate degree of curvature?

A. No, I don't; from a point about 1,000 feet down the runway in the center to a point about 1,800 feet on the left edge from the end of the runway.

Q. It was right at the left edge of the runway that the aircraft—that you lost the tracks?

Mr. Matthews: I think that is very leading.

The Court: Sustained.

The Witness: I don't know that the—— [386]

The Court: Just a moment. Ask him another question.

Q. What did you observe at the left edge of the runway at the end of the curve you have just described?

A. I don't recall that the track actually went to the end of the edge of the runway. My memory isn't that good, but it seems to me there was a one-wheel track. Whether it was intermittent or solid, I don't quite recall at this time.

Q. The plane finally crashed into what?

A. Into the revetment hangar on Boeing Field.

Q. Where is that located with reference to the runway we spoke about?

A. That is to the east side of the runway.

Q. That would be to the left as you go south, is that correct? A. To the left, yes.

Q. Do you know approximately how far south that hangar is from the north end of the field?

A. No, I don't. I would say it is maybe two-thirds of the way down the runway.

(Testimony of Louis Mugge.)

Q. How long is the runway?

A. The usable portion is 7,500 feet, if I remember right.

Q. Approximately how far to the east of the runway is the hangar located?

A. That I do not know.

Mr. Cluck: That is all. [387]

The Court: May I ask you how much distance, approximately, as you recall it, do you think the plane tracks traversed from that approximate 1,000-foot point to the place where you said you saw no further evidence of the tracks?

The Witness: Are you referring to the runway itself, your Honor?

The Court: I am talking about that curved line that you saw. I understood you to say—these are not your words—I understood you, in substance, to say that the tracks started from, you meant, the north end of the runway, did you not?

The Witness: Yes, sir.

The Court: And they continued to a point about 1,000 feet to the southward and there you observed the beginning, or near that point, is that what you said, that you observed the beginning of a curved line?

The Witness: Yes, sir.

The Court: For what distance were you able, and did you, if you did, trace that curved line before it disappeared?

The Witness: It was about 800 feet more down

(Testimony of Louis Mugge.)

the runway, which would give a total of 1,800 feet from the end, of the north end of the runway.

Mr. Cluck: That is all. [388]

Mr. Matthews: That is all.

The Court: You may step down. The Court wishes to commend Mr. Mugge for his success in getting here.

Mr. Cluck: The plaintiff rests, your Honor.

The Court: I was wondering if the witness Cook, in view of the fact that he was not consulted about the striking of his testimony, if he wished an opportunity to make any statements regarding the accuracy of his testimony. The record was made without his being consulted that his testimony was inaccurate and that may or may not be fair to him. I do not know whether he considers it so or not. Does he wish to make a statement? If so, Mr. Cook, you may come forward. I think in fairness to the witness, since he was not consulted, at least in open court he should be given that opportunity.

Witness Cook: It has been a year and a half since I saw those tracks, and I have not even been near Boeing Field, I might say, since then. I didn't in any way consult the statement that I had made before, and to the best of my knowledge, as I remembered it, those tracks were visible. However, it is quite possible that they weren't, as Mr. Mugge stated. He said they were picked up about 1,050 feet, so that is probably correct.

The Court: Does anyone else wish to ask a question that would bring out any other detail that he

might wish [389] brought out, or which you wish him to have the opportunity of bringing out?

Mr. Cluck: Did I consult you at all about this matter prior to your testifying?

Witness Cook: None whatsoever.

Mr. Cluck: Did I suggest you read the report concerning what you had testified previously?

Witness Cook: No, sir.

Mr. Cluck: Or give you any opportunity to refresh your recollection?

Witness Cook: No, sir.

Mr. Cluck: You just did the best you could from your memory?

The Witness: That is right. I gave it as I remembered it.

Mr. Cluck: And you think you made a mistake?

The Witness: Perhaps I did.

The Court: Is there anything else? The witness is excused.

As I understand it, plaintiffs rest.

Mr. Cluck: That is correct.

The Court: Do the defendants likewise rest?

Mr. Matthews: No rebuttal.

The Court: How much time do you gentlemen wish to argue this tomorrow morning? [390]

Mr. Cluck: Your Honor, extensive briefs have been submitted by both sides, and I think this is one of those cases where in the long run it would save time to have a fair amount of time for oral argument. Our suggestion is that the morning be equally divided between both sides. If we can finish sooner than that, of course, we would like to do so,

but I think there are quite a number of points here that should require attention before the argument is over.

Mr. Matthews: I do not know what the Court's calendar is like. I made the statement to the Court we would finish in three days, and I think the Court has heard all of the testimony and had briefs and reply briefs from both parties. We would be willing to submit the matter to the Court or to abide by such time for argument as the Court may designate.

The Court: I prefer to hear oral argument, and I will do that tomorrow morning. If each side would be satisfied with 45 minutes, I might begin the argument at one hour in the forenoon. If a different time is desired, the Court might begin at another time in the forenoon.

Mr. Cluck: We feel, your Honor—we discussed it, we are just expressing our belief and opinion—that it would be better to have more time than that. We think it would be helpful all the way [391] around.

The Court: The Court will extend to each side one hour's time for argument, and we will begin the arguments at 9:30 tomorrow morning and we will finish them not later than 11:30. There will be some time out for a recess. I wish to be finished with the arguments about that time, so each side may have approximately an hour. Do you think in this case you as the plaintiff ought to have the opening and closing?

Mr. Cluck: We submit that is the case, your Honor.

The Court: Is there any objection?

Mr. Matthews: If they have the burden of proof, which I think they have, they should have the opening and closing.

The Court: Then you have no objection?

Mr. Matthews: If we have the burden of proof, I think that matter should be passed on.

Mr. Houghton: We feel all we have the burden of proof on is to prove the conditions of the establishment of the valid contract of insurance. We naturally had that burden, of course.

The Court: The plaintiffs in this case are suing on a policy. The defendants are defending against liability. The plaintiffs will have the opening and closing arguments and the defendants may have the argument in between. Plaintiffs may divide their hour's [392] time in such portions as they may wish as between the opening and closing arguments. How many counsel desire to speak for each side of the litigation?

Mr. Dennis: I waive my argument, your Honor.

The Court: Do both Mr. Cluck and Mr. Houghton wish to argue?

Mr. Cluck: I think we probably will.

The Court: Let one make the opening and the other the closing argument. What about the defendants' argument? Is more than one counsel desirous of participating?

Mr. Matthews: Mr. Wilkerson and I both will make arguments.

The Court: You may divide your arguments as between the two of you in such portion as you wish.

I ask counsel about the briefs. I have a trial brief from each side. Then I have what are denominated Plaintiffs' Supplemental Brief, filed today, and a brief signed by Macbride, Matthews & Hanify, entitled Supplemental Memorandum of Proof of Negligence by Circumstantial Evidence. Are those all of the briefs made that relate to the merits of the case?

Mr. Wilkerson: Those are all of our briefs, your Honor.

Mr. Houghton: You have two from us, your Honor.

The Court: You filed a trial brief, Plaintiffs' Memorandum of Points and Authorities, filed on the 11th, [393] and the plaintiffs filed a supplemental brief on today's date. Are those two the only briefs you filed?

Mr. Houghton: That is right, your Honor.

The Court: As to the defendants, you have filed two briefs during the trial. One was filed yesterday, called Trial Brief, and you have filed one today called Supplemental Memorandum of Proof of Negligence by Circumstantial Evidence.

Mr. Wilkerson: Those are all the briefs, your Honor.

The Court: In those briefs, have counsel for both sides discussed these legal questions about the waiver and consent? Have you authorities cited upon those points?

Mr. Houghton: I think we have, your Honor. I think we took up each point systematically and attempted to cover it.

The Court: We will begin the argument at 9:30 tomorrow morning. Court is adjourned until that time. The witnesses are all excused.

Mr. Matthews: Could I impose on the Court to ask a very important question?

Mr. Houghton: We have no objection.

The Court: Court is again in session. Defendants' case in chief is now opened up for this purpose.

Mr. Matthews: Mr. John O. Vineyard. [394]

The Court: Mr. Vineyard has been previously sworn. He is now recalled for further examination.

JOHN VINEYARD

recalled as a witness by and on behalf of defendants, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Matthews:

Q. You heard the testimony that was given by——

The Court: Is this surrebuttal intended?

Mr. Matthews: Yes.

The Court: That is so regarded, instead of as the Court previously stated.

Q. You heard the testimony that was given by Mr. Strong concerning the automatic pilot and the time at which it would take hold and the way it would affect the airplane? A. I did.

Q. Will you please state whether or not you agree with that testimony?

(Testimony of John Vineyard.)

A. No, sir, I do not, altogether.

Q. Will you state to the Court your belief as to that matter, your opinion?

A. In my belief, I believe that as soon as the power was applied and enough pressure built up on the system and [395] the airplane started to move, it would start veering off in the direction at which the automatic pilot was set.

Q. If the automatic pilot had been set for an instrument takeoff at the north end of the runway, I will ask you if you would have expected it to have veered off before it had traveled the distance that was referred to here in the testimony?

A. That is my belief. I believe it would, yes, sir. I believe it would have started to turn before it went 1,800, 2,000 feet. It would have started a good deal before that, because the pressure in the system would have built up and there would have been enough pressure on the controls of the airplane that would have caused it to turn off, I would say, at approximately 500 feet, start veering off in the direction in which it was set if it were on.

Mr. Matthews: That is all.

Cross-Examination

By Mr. Cluck:

Q. You said it would take about 500 feet for the air flow to make your rudder surfaces effective, is that right?

A. That is true. That would be one thing, and the pressure built up in the system.

(Testimony of John Vineyard.)

Q. How many more feet would it be before the tail would rise, before the rear end of the plane would rise?

A. It would depend on the pressure put on the wheel. [396] If it was just the automatic pilot alone was flying, it would probably rise at the same time it would take effect. It would start rising the same time the airplane or the automatic pilot—at the same time it would take effect or take hold of the airplane, it would start raising the tail, more than likely, if it is trimmed in a nose-lowered condition. If it was trimmed in a tail-lowered condition, it would probably run for 3,000 feet before the tail would ever rise.

Q. Ordinarily the rear portion, the tail of your airplane, would rise sometime after the airflow makes your rudder surfaces really effective in your runway takeoff, isn't that right?

A. That is a hydraulic control automatic pilot, and you have to have pressure in the system before it will even function.

Q. I am not speaking of that. I am speaking of the rising of the tail surfaces.

A. It has to be trimmed. The airplane has to be trimmed in a certain attitude for the pilot to take off.

Q. Irrespective of the pilot, about what time during the course of a normal takeoff on the runway does the rear surface of the airplane rise?

A. You are talking about a normal takeoff?

Q. I am talking about a normal takeoff.

(Testimony of John Vineyard.)

A. On a normal takeoff, probably 2,000 [397] feet.

Q. Whether this automatic pilot would cause the airplane to veer one way or the other in the early portion of the takeoff might depend upon whether your tail wheel was locked or unlocked, wouldn't it?

A. That might have some effect on the automatic pilot.

Q. If your tail wheel was locked, then your automatic pilot wouldn't cause the plane to turn until the rear surface of the airplane rose off the ground?

A. That is possible, yes, sir.

Mr. Cluck: That is all.

Redirect Examination

By Mr. Matthews:

Q. You have been here all during the trial?

A. Yes, sir.

Q. You have heard all of the testimony?

A. Yes, sir.

Q. State whether or not, in your opinion, the crash of this airplane was caused by the automatic pilot taking hold?

A. In my opinion, it was not.

Mr. Matthews: That is all.

Recross-Examination

By Mr. Cluck:

Q. From your knowledge of aircraft, you wouldn't want to undertake to say definitely what caused this or any other crash? [398]

(Testimony of John Vineyard.)

A. As I stated yesterday, there was a factor of things that caused it.

Q. The three things you mentioned?

A. Yes, sir.

Q. You don't enlarge upon the testimony that you gave yesterday in that respect?

A. No, sir.

Mr. Cluck: That is all.

Mr. Matthews: The three things, in your opinion, that contributed to this accident were what?

The Witness: Would be ice, would be overload, and pilot proficiency.

Mr. Matthews: What do you mean by pilot proficiency?

Mr. Cluck: If your Honor please, we had no objection at all to surrebuttal. What counsel now is doing is to go back over the same three things that were covered in both direct and cross-examination. We left the matter of the automatic pilot and anything else, apparently, and are going over the same ground covered yesterday.

Mr. Matthews: I don't think the witness ever did explain what he means by pilot proficiency.

The Court: The objection is overruled. This subject was gone into by questions of Mr. Cluck. Be as brief as you can.

The Witness: Take first icing [399] conditions——

The Court: I think he wants to know not about icing conditions; he wants to know what you meant by your use of the term pilot proficiency.

(Testimony of John Vineyard.)

The Witness: I would have to go into the other terms to prove that it could have been caused by any one of the three or the three combined.

Mr. Cluck: I object to that, your Honor. The witness should answer the question if he can.

The Court: I think so. If he cannot answer it, then he cannot. All he wants you to do is to explain what you mean by your use of the term pilot proficiency.

Mr. Matthews: Let me ask you if I understand you correctly. You mean that when an airplane gets into trouble, that some pilots are better able to get it out of trouble than others?

The Witness: That is correct, yes, sir. It is the skill of a pilot handling an airplane, is pilot proficiency. Some have the proficiency, some don't have, and time and practice and schooling and everything else builds up a pilot's proficiency.

Mr. Matthews: Of these three things, which one do you think got the airplane in trouble in the first instance?

The Witness: It has always been my opinion that the icing conditions on the airplane did.

Mr. Matthews: By pilot proficiency, you mean some [400] pilots, an expert pilot, might have been able to get it out of that trouble?

The Witness: That is correct, yes, sir.

Mr. Matthews: That is all.

Mr. Cluck: That is all.

The Court: Do both sides rest?

Mr. Cluck: Yes, your Honor.

Mr. Matthews: Yes, your Honor.

The Court: You are excused until tomorrow morning.

(At 5:08 o'clock p.m. Thursday, October 12, 1950, proceedings adjourned until 9:30 o'clock a.m. Friday, October 13, 1950.)

October 13, 1950, 9:30 A.M.

The Court: I will hear counsel in argument from their present stations.

Mr. Dennis: May I be excused, your Honor?

The Court: You desire to be excused and rest the Government's argument upon that made by other counsel for plaintiffs?

Mr. Dennis: Yes, your Honor.

The Court: Is there any objection? That request is granted. We will now hear plaintiffs' opening argument. [401]

(Arguments made by counsel for plaintiffs
and counsel for defendants.)

The Court: I would like very much to be able at this time to appropriately announce the Court's decision, but not feeling it appropriate to do so by reason of certain factors which I need to check more carefully than the time and opportunity have up to this time afforded me, I have to take some additional time to study this record. That necessitates the Court's taking this case under advisement.

I will have to assure counsel that in addition to being regretted by me, it affords occasion for some regret on the part of counsel because I cannot tell

when I will be able to announce a decision in this case in view of other pressing matters needing the Court's attention before this. I can only say that I will do the best I can. I am sorry that my work is such that I cannot allow counsel the reasonable hope that this can be disposed of immediately.

The case is taken under advisement.

(At 11:55 o'clock a.m. Friday, October 13, 1950, trial proceedings concluded.) [402]

Certificate

I, Patricia Stewart, do hereby certify that I am official court reporter for the above-entitled court, and as such was in attendance upon the hearing of the foregoing matter.

I further certify that the above transcript is a true and correct record of the matters as therein set forth.

/s/ PATRICIA STEWART,
Official Court Reporter.

Receipt of copy acknowledged.

[Endorsed]: Filed August 29, 1951.

[Title of District Court and Cause.]

CERTIFICATE OF CLERK U. S. DISTRICT
COURT TO RECORD ON APPEAL

United States of America,
Western District of Washington—ss.

I, Millard P. Thomas, Clerk of the United States District Court for the Western District of Washington, do hereby certify that pursuant to the provisions of Subdivision I of Rule 11 as Amended of the United States Court of Appeals for the Ninth Circuit, and Rule 75(o) of the Federal Rules of Civil Procedure, I am transmitting herewith all of the original papers in the file dealing with the above-entitled action, and that the same constitute the complete record on file in said cause. The papers herewith transmitted, together with Plaintiff's Exhibits numbered 1 to 10, inclusive, and defendants' Exhibits A-1 to A-6, inclusive, and A-8 to A-14, inclusive, constitute the record on appeal herein from the Judgment entered July 24, 1951, dismissing the action, to the United States Court of Appeals for the Ninth Circuit, and are identified as follows:

1. Complaint, filed Oct. 19, 1949.
2. Praecipe for Summons, filed Oct. 19, 1949.
3. Summons with Marshal's Return thereon, filed Oct. 21, 1949.
4. Notice of Appearance of Defendants, filed Nov. 10, 1949.
5. Answer of Defendants, filed Nov. 29, 1949.
6. Reply, filed Mar. 2, 1950.

7. Motion Plaintiffs to File Demand for Jury, filed May 4, 1950.

8. Note for Motion calendar on above motion, filed May 4, 1950.

9. Statement of Defendants' Reasons in Opposition to the Motion of Plaintiff for Permission to File Demand for Jury, filed May 5, 1950. (Defts'. Memo. in Opposition to Demand for Jury attached.)

10. Plaintiffs' Memorandum in Support of Motion for Permission to File Demand for Jury or Order for Trial by Jury, filed May 8, 1950.

11. Request for Admission Under Rule 36 by defendants, filed Sept. 8, 1950.

12. Praecept for Subpoena, James Smith, with Marshal's Return, filed 9-12-50.

13. Motion to File Amended Complaint, filed Sept. 12, 1950.

14. Note for Motion Calendar, filed Sept. 12, 1950.

15. Marshal's Return on Subpoena, Schaak, filed 9-14-50.

16. Marshal's Return on Subpoena, Roderick, filed Sept. 14, 1950.

17. Marshal's Return on Subpoena, Kendall, filed Sept. 14, 1950.

18. Marshal's Return on Subpoena, Cole, filed Sept. 14, 1950.

19. Notice to Take Depositions Upon Oral Examination, filed Sept. 15, 1950.

20. Notice to Take Deposition of George M. Cole, filed Sept. 18, 1950.

21. Amended Complaint, filed Sept. 18, 1950.

21a. Affidavit of R. V. Houghton, filed Sept. 18, 1950.

22. Order Granting Leave to File Amended Complaint, filed Sept. 18, 1950.

23. Plaintiffs' Answer to Defendants' Request for Admission Under Rule 36, filed Sept. 18, 1950.

24. Marshal's Returns on subpoenas, Don Lynch, et al., filed Sept. 27, 1950.

25. Affidavit of Philip G. Kapleau, filed Oct. 5, 1950.

26. Marshal's Return on Subpoenas, Miner, et al., filed Oct. 6, 1950.

27. Affidavit of Service of Ward L. Sax re Notice to Take Deposition of George M. Cole, filed Oct. 6, 1950.

28. Marshal's Return on subpoenas, Strong, et al., filed Oct. 6, 1950.

29. Depositions of John Kendall, Jr., George M. Cole, Donald F. Lynch, James W. Smith, Charles S. Belknap, filed Oct. 9, 1950.

30. Affidavit of Service of Notice to Take Depositions upon Oral Examination, filed Oct. 9, 1950.

31. Marshal's Return on subpoena, Jandl, filed Oct. 10, 1950.

32. Marshal's Return on subpoena, Fennell, filed Oct. 10, 1950.

33. Marshal's Return on Subpoena, Davison, filed Oct. 10, 1950.

33a. Stipulation re documents admissible in evidence, filed Oct. 10, 1950.

34. Stipulation re names of passengers on board aircraft, filed 10-11-50.

35. Plaintiffs' memorandum of Points and Authorities, filed Oct. 11, 1950.

36. Trial Brief of Defendants, filed Oct. 11, 1950.

37. Supplemental Memorandum on Proof of Negligence by Circumstantial Evidence, filed Oct. 12, 1950.

38. Plaintiffs' Supplemental Brief, filed Oct. 12, 1950.

39. Court's Opinion, filed July 13, 1951.

40. Court Reporter's Transcript of excerpt from record re allegations of paragraph IV, filed July 18, 1951.

41. Clerk's record of trial, Oct. 10, 1950, et seq., filed July 13, 1951.

42. Findings of Fact and Conclusions of Law, filed July 23, 1951.

43. Judgment, filed July 23, 1951, entered in Civil Docket July 24, 1951.

44. Notice of Appeal, filed August 23, 1951.

45. Bond for Costs on Appeal, filed August 23, 1951. (Am. Surety Company of New York—\$250.00.)

46. Court Reporter's Transcript of Proceedings at Trial, filed Aug. 29, 1951.

47. Designation of Contents of Record on Appeal, filed Aug. 29, 1951.

48. Defendants' and Appellees' Designation of Additional Matter for Record, filed Sept. 7, 1951.

49. Court Reporter's Transcript of proceedings on Introduction of Exhibits in Opening Statement, and Proceedings at Time of Entering Findings of

Fact, Conclusions of Law and Judgment, filed Sept. 7, 1951.

50. Stipulation transmitting original exhibits, filed Sept. 25, 1951.

51. Order Directing Transmittal of original Exhibits, filed Sept. 25, 1951.

I further certify that the following is a true and correct statement of all expenses, costs, fees and charges incurred in my office for preparation of the record on appeal herein on behalf of plaintiffs, to wit: Filing fee, notice of Appeal, \$5.00, which amount has been paid to me by the attorneys for appellants.

In Witness Whereof I have hereunto set my hand and affixed the official seal of said District Court at Seattle this 26th day of September, 1951.

[Seal]

MILLARD P. THOMAS,
Clerk,

By /s/ TRUMAN EGGER,
Chief Deputy.

[Endorsed]: No. 13122. United States Court of Appeals for the Ninth Circuit. United States of America, R. P. Jandl, as Administrator of the Estate of William F. Leland, Deceased, and C. W. Breakiron, Successor Receiver for Atlantic and Pacific Airlines, Appellants, vs. Eagle Star Insurance Company, Limited; Orion Insurance Company, Limited; The Drake Insurance Company, Limited, subscribing underwriting members of Lloyd's, London, Appellees. Transcript of Record. Appeal from the United States District Court for the Western District of Washington, Northern Division.

Filed October 3, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the
Ninth Circuit.

In the United States Court of Appeals
for the Ninth Circuit

No. 13122

THE UNITED STATES OF AMERICA and
R. P. JANDL, as Administrator of the Estate
of William F. Leland, Deceased,

Appellants,

vs.

EAGLE STAR INSURANCE COMPANY,
LIMITED; ORION INSURANCE COM-
PANY, LIMITED; THE DRAKE INSUR-
ANCE COMPANY, LIMITED, Subscribing
Underwriting Members of Lloyd's, London.

Appellees.

APPELLANTS' STATEMENT OF POINTS ON
WHICH THEY INTEND TO RELY ON
APPEAL

Pursuant to subdivision 6 of Rule 19 of the above-named court, appellants state that the points on which they intend to rely on this appeal are:

1. It being admitted that the policy attached as a binding contract, that the premiums were paid and that the loss occurred, the insurers had the burden of proving, strictly and by a preponderance of the evidence, any facts which would entitle them to forfeit the policy or defeat a recovery. They failed to sustain that burden.

2. The evidence does not justify the trial court's

finding that the assured, William F. Leland, acted negligently, carelessly and recklessly in causing the acting pilot of the insured aircraft to attempt to take off in flight under the existing conditions nor his finding that the damage to the aircraft and the revetment hangar was proximately caused by such negligence.

3. Even if the assured was guilty of negligence which proximately caused the loss or damage, such negligence did not violate the terms of the insurance policy nor justify the holding that plaintiffs are not entitled to recover against the insurers for loss or damage to the insured aircraft.

4. Such negligence, even if proved, would not relieve the insurers from their obligation under Section 2 of the policy to indemnify the insured against the judgment obtained by King County for damage to its revetment hangar, nor from their duty, under the same section, to defend the suit brought by King County.

5. Paragraph 3 of the General Conditions of the policy, quoted on page 2 of the trial court's opinion, should be construed to be a condition pertaining to the care and preservation of the insured property in the event of an accident, not a covenant against negligence in the operation of the aircraft. There is nothing in that paragraph or elsewhere in the policy to take the policy out of the general rule that the law requires the insurer to assume the risk of negligence of the insured and permits recovery

even though the negligence of the insured caused the loss.

6. Section 1-A of the policy insures against accidental damage caused by frost. "Frost," as used here, means freezing. If the trial court's Findings of Fact, and particularly Paragraphs IX and X thereof, are correct, the loss sued for resulted from an accident caused by freezing, which was a hazard expressly insured against.

7. The court erred in sustaining appellees' objections to the offers of proof recorded on pages 343 to 347, inclusive, of the court reporter's Transcript of Proceedings at Trial, which is page (or item) No. 46 of the original certified record.

/s/ JACK R. CLUCK,

/s/ ROLLA V. HOUGHTON, of

HOUGHTON, CLUCK, COUGHLIN & HENRY,

Attorneys for Appellant R. P. Jandl, as Administrator of the Estate of William F. Leland, Deceased, and Appellant C. W. Breakiron, Successor Receiver for Atlantic and Pacific Airlines.

/s/ J. CHARLES DENNIS,

United States Attorney, for Appellant United States of America.

Receipt of copy acknowledged.

[Endorsed]: Filed October 10, 1951.